

**A Community Health Needs Assessment**  
**Prepared for Riverside Shore Memorial Hospital**  
**By Community Health Solutions**  
October 2012



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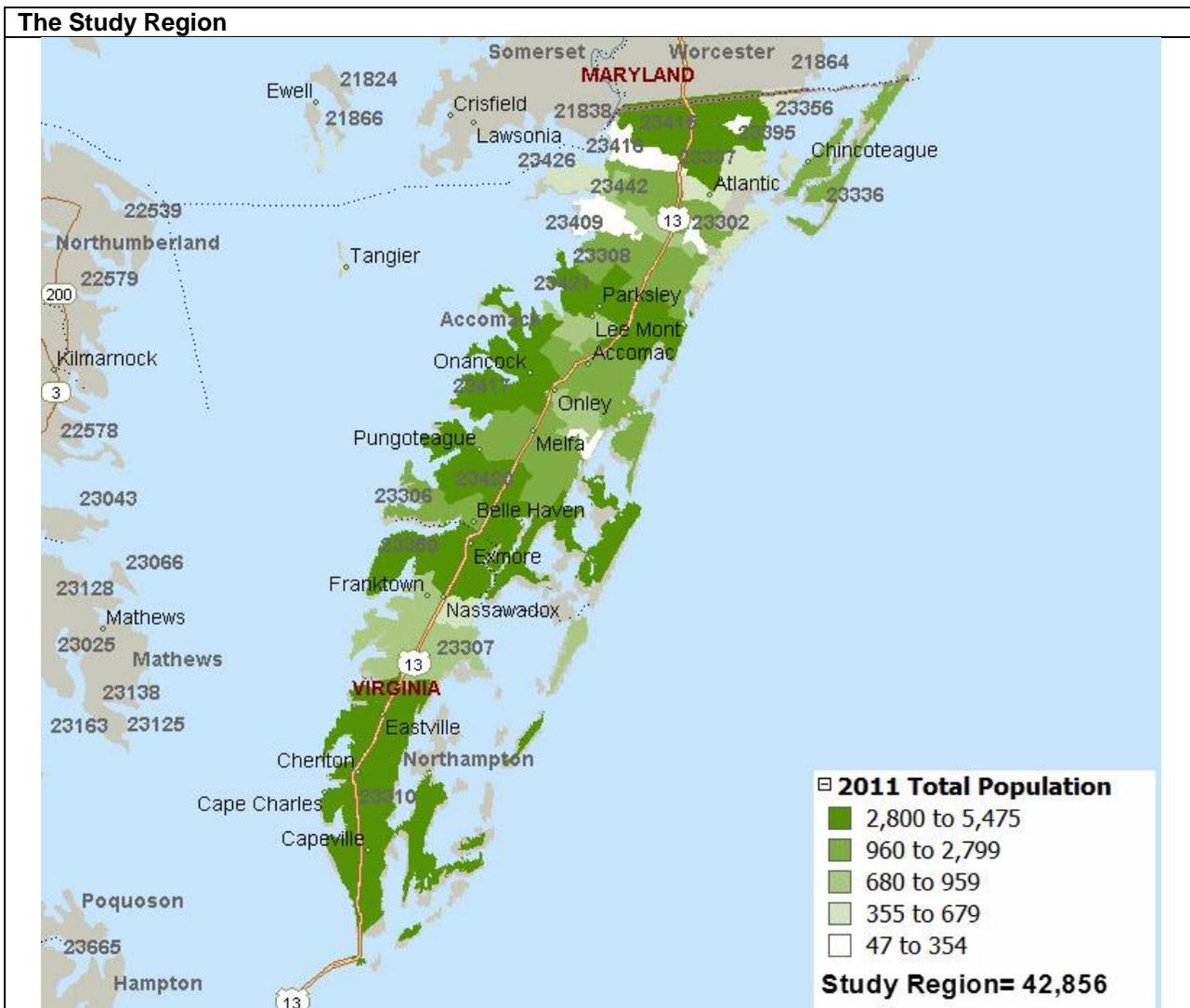
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## Executive Summary

The mission of Riverside Shore Memorial Hospital (SMH) is "to improve health and promote wellbeing." With this mission in mind, SMH commissioned Community Health Solutions to conduct this community health needs assessment in 2012.

The study focuses on the Riverside Shore Memorial Hospital (SMH) service area of 30 zip codes which fall within Accomack and Northampton counties. The study region is shown in the map below. The results of the study include two primary components: a 'community insight profile' based on qualitative analysis of a survey of community stakeholders, and a 'community indicator profile' based on quantitative analysis of community health status indicators. This Executive Summary outlines major findings, and details are provided in the body of the report.



### Part I. Community Insight Profile

In an effort to generate community input for the community health needs assessment, a Community Insight Survey was conducted with a group of community stakeholders identified by SMH. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community; and
- Ideas for addressing health concerns and service gaps.

The survey was sent to a group of 55 community stakeholders identified by SMH. A total of 31 (56%) submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. To summarize:

- The respondents identified almost two dozen important health concerns such as obesity, chronic disease, substance use, Alzheimer's Disease, mental health conditions, teen pregnancy and more.
- The respondents reported more than two dozen specific community services in need of strengthening. Commonly identified services included behavioral health services; hospital services; aging services; health care coverage; health promotion and prevention services; and more.

Eleven respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B* on page 37.

## Part II. Community Indicator Profile

The community indicator profile in Part II presents a wide array of quantitative community health indicators for the study region. To produce the profile, Community Health Solutions analyzed data from multiple sources. By design, the analysis does not include every possible indicator of community health. The analysis is focused on a set of indicators that provide broad insight into community health, and for which there were readily available data sources.<sup>1,2</sup> To summarize:

- *Demographic Profile.* As of 2011, the study region included 42,856 people. Compared to the Commonwealth of Virginia as a whole, the study region is more sparsely populated, and has (proportionally) more seniors age 65+ and Black/African American residents. The study region also has lower income levels, and (proportionally) more adults without a high school education, than Virginia as a whole.
- *Mortality Profile.* The study region had 517 total deaths in 2010. The leading causes of death were heart disease, malignant neoplasm (cancer), and cerebrovascular disease. The age-group death rates per 100,000 population were higher than the statewide rates for adults age 45-64 (and comparable for seniors age 65+).<sup>3</sup>
- *Maternal and Infant Health Profile.* The study region had 468 total live births in 2010. Compared to Virginia as a whole, the study region had higher rates of low weight births, births without early prenatal care, and non-marital births. Both the five-year infant mortality rates and teen pregnancy rates were higher than the statewide rates for the two localities that encompass the study region (Accomack and Northampton counties).<sup>4</sup>
- *Preventable Hospitalization Profile.* The Agency for Healthcare Research and Quality (AHRQ) defines a set of conditions (called Prevention Quality Indicators, or 'PQIs') for which hospitalization should be avoidable with proper outpatient health care.<sup>5</sup> High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents. Residents of the study region had 539 PQI

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<sup>1</sup> Unless otherwise noted, demographic data used in the report were acquired from Alteryx, Inc., a commercial vendor of such data. The Virginia Department of Health was the source for all of the birth and death data included in the report. Virginia Health Information, Inc. was the source of the hospital discharge data included in the report. Virginia Health Information (VHI) requires the following statement to be included in all reports utilizing its data: *VHI has provided non-confidential patient level information used in this report which was compiled in accordance with Virginia law. VHI has no authority to independently verify this data. By accepting this report the requester agrees to assume all risks that may be associated with or arise from the use of inaccurately submitted data. VHI edits data received and is responsible for the accuracy of assembling this information, but does not represent that the subsequent use of this data was appropriate or endorse or support any conclusions or inferences that may be drawn from the use of this data.*

<sup>2</sup> In addition, Community Health Solutions produced a number of indicators using 'synthetic estimation methods.' Synthetic estimation methods can be used when there are no readily available sources of local data to produce a community health indicator. Synthetic estimation begins with analysis of national and state survey data to develop estimates of the number of people with a particular health status (e.g. asthma, diabetes, uninsured) at the national or state level. The national and state data are then applied to local demographic data to produce estimates of health status in a local area. These kinds of synthetic estimates are subject to error. They are instructive for planning, but it is not possible for Community Health Solutions to guarantee their accuracy.

<sup>3</sup> Age adjusted death rates were not calculated for this study because the study region is defined by zip codes, and available data are not structured to support calculation of age adjusted death rates at the zip code level. Age group death rates are used as an alternative.

<sup>4</sup> Infant mortality and teen pregnancy rates were not calculated for this study region because the study region is defined by zip codes, and available data are not structured to support calculation of rates at the zip code level. City/county level rates are provided as an alternative.

<sup>5</sup> The PQI definitions are detailed in their specification of ICD-9 diagnosis codes and procedure codes. Not every hospital admission for congestive heart failure, bacterial pneumonia, etc. is included in the PQI definition; only those meeting the detailed specifications. Low birth weight is one of the PQI indicators, but for the purpose of this report, low birth weight has been included in the Maternal and Infant Health Profile. Also, there are three diabetes-related PQI indicators which have been combined into one for the report. For more information, visit the AHRQ website at [www.qualityindicators.ahrq.gov/pqi\\_overview.htm](http://www.qualityindicators.ahrq.gov/pqi_overview.htm)

hospital discharges in 2011, with most involving seniors age 65+. <sup>6</sup> The leading diagnoses for these discharges were congestive heart failure, bacterial pneumonia, and chronic obstructive pulmonary disease. The study region PQI discharge rates per 100,000 population were higher than the statewide rates for adults age 45-64, and lower for seniors age 65+.

- *Behavioral Health Hospital Discharge Profile.* Behavioral health hospitalizations provide another important indicator of community health status. Residents of the study region had 205 hospital discharges from Virginia hospitals for behavioral health conditions in 2011. <sup>7</sup> The leading diagnoses for these discharges were affective psychoses, general symptoms and schizophrenic disorders. The study region behavioral health discharge rates per 100,000 population were lower than the statewide rates for those age groups where a rate was calculated (age 30+).
- *Adult and Child Health Risk Profiles.* The study includes a set of estimates of adult and child health risk. The local estimates indicate that substantial numbers of adults in the study region may have health risks related to nutrition, physical activity, weight, tobacco, and alcohol. It is also estimated that large numbers of children in the study region are not meeting recommendations for healthy eating, physical activity and healthy weight.
- *Uninsured Profile.* An estimated 8,960 (18%) nonelderly residents of the study region were uninsured at any point in time in 2011. Among both children and adults, the large majority of uninsured residents were estimated to have income at or below 200% of the federal poverty level (FPL).
- *Medically Underserved Profile.* Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are designated by the U.S. Health Resources and Services Administration as being at risk for health care access problems. The designations are based on several factors including primary care provider supply, infant mortality, prevalence of poverty, and the prevalence of seniors age 65+. Both localities that encompass the study region have been fully designated as MUAs (Accomack and Northampton counties).

## **Accompanying File of Zip Code Level Indicators**

This report includes community health indicators for the study region as a whole. A separate Microsoft Excel file contains indicators for each zip code within the study region.

## **Appendix A: Zip Code-Level Maps for the Study Region**

*Appendix A* provides a set of thematically colored maps displaying variation in community health indicators by zip code. The underlying data for these maps are provided in a separate Microsoft Excel file. *Please read the important note about zip code level data in the introduction to Appendix A.*

## **Appendix B: Community Insight Profile- Additional Ideas and Suggestions for Improving Community Health**

Eleven survey respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B* on page 37.

## **Appendix C: Community Health Needs Assessment Data Sources**

*Appendix C* provides a list of the data sources used in the analysis of this report.

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<sup>6</sup> Data include discharges from Virginia hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.

<sup>7</sup> Data include discharges from Virginia hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.

## Part I. Community Insight Profile

In an effort to generate community input for the community health needs assessment, a Community Insight Survey was conducted with a group of community stakeholders identified by SMH. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community; and
- Ideas for addressing health concerns and service gaps.

The survey was sent to a group of 55 community stakeholders identified by SMH. A total of 31 (56%) submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. The results are summarized in the remainder of this section.

### 1. Survey Respondents

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*Exhibit I-1* below lists the organizational affiliations of the survey respondents.

**Exhibit I-1**  
**Reported Organization Affiliation of Survey Respondents<sup>8</sup>**

Banks Chiropractic and Nutrition	Northampton County Chamber of Commerce
County of Northampton	Northampton County Public Schools
Eastern Shore Area Agency on Aging	Rayfield's Pharmacy
Eastern Shore Chamber of Commerce(2)	Riverside Home Health
Eastern Shore Chiropractic Clinic	Riverside Shore Memorial Hospital(3)
Eastern Shore Community College	Riverside Shore Rehabilitation Center
Eastern Shore Community Services Board	Runniger's Pharmacy
Eastern Shore Rural Health System	Seashore Eyecare
First Home Care	Town of Cape Charles
First Med EMS	Town of Onancock
H & H Pharmacy	Town of Onley
Hermitage on the Eastern Shore	Virginia Department of Health- Eastern Shore Health District
Hospice and Palliative Care of the Eastern Shore	Virginia Division of Rehabilitative Services
Len J. Bundick, Chiropractor, PC	<i>Unknown Organization(2)</i>

<sup>8</sup> One respondent represented two organizations.

## 2. Community Health Concerns

Survey respondents were asked to review a list of common community health issues. The list of issues draws from the topics in *Healthy People 2020* with some refinements. The survey asked respondents to identify from the list what they view as important health concerns in the community. Respondents were also invited to identify additional issues not already defined on the list. *Exhibit I-2* summarizes the results.

**Exhibit I-2.  
Important Community Health Concerns Identified by Survey Respondents**

Answer Options	Response Percent <sup>9</sup>	Response Count
Adult Obesity	79%	23
Diabetes	76%	22
Alcohol Use	72%	21
Substance Abuse - Illegal Drugs	72%	21
Cancer	69%	20
Childhood Obesity	69%	20
Heart Disease & Stroke	69%	20
Alzheimer's Disease	62%	18
Tobacco Use	62%	18
Mental Health Conditions	59%	17
Substance Abuse - Prescription Drugs	59%	17
Teen Pregnancy	52%	15
Dental Care/Oral Health	45%	13
Prenatal & Pregnancy Care	45%	13
Chronic Pain	41%	12
Arthritis	35%	10
Asthma	35%	10
Domestic Violence	35%	10
Intellectual/Developmental Disabilities	31%	9
Respiratory Diseases (other than asthma)	28%	8
Environmental Quality	17%	5
Physical Disabilities	17%	5
Sexually Transmitted Diseases	17%	5
Infectious Diseases	14%	4
Injuries	14%	4
Autism	10%	3
HIV/AIDS	10%	3
<i>Other Health Problems (see open-ended responses)</i>	0%	0

*Note: When interpreting the survey results, please note that although the relative number of responses received for each item is instructive, it is not a definitive measure of the relative importance of one issue compared to another.*

<sup>9</sup> Twenty-nine (29) of the 31 survey respondents answered this question.

### 3. Community Service Gaps

Survey respondents were asked to review a list of community services that are typically important for addressing the health needs of a community. Respondents were asked to identify from the list any services they think need strengthening in terms of availability, access, or quality. Respondents were also invited to identify additional service gaps not already defined on the list. *Exhibit I-3* summarizes the results, including open-ended responses.

**Exhibit I-3.  
Important Community Service Gaps Identified by Survey Respondents**

Answer Options	Response Percent <sup>10</sup>	Response Count
Behavioral Health Services (including mental health, substance use and intellectual disability)	77%	23
Hospital Services (including emergency, inpatient and outpatient)	70%	21
Aging Services	53%	16
Health Care Coverage	50%	15
Health Promotion and Prevention Services	50%	15
Chronic Pain Management Services	47%	14
Patient Self Management Services (e.g. nutrition, exercise, taking medications)	47%	14
Specialty Medical Care (e.g. cardiologists, oncologists, etc.)	43%	13
Transportation	43%	13
Long Term Care Services	37%	11
Chronic Disease Services (including screening and early detection)	33%	10
Domestic Violence Services	33%	10
Dental Care/Oral Health Services	30%	9
Early Intervention Services for Children	30%	9
Maternal, Infant & Child Health Services	30%	9
Primary Health Care Services	27%	8
Family Planning Services	17%	5
School Health Services	17%	5
Social Services	17%	5
Food Safety Net/Basic Needs Services	13%	4
Public Health Services	13%	4
Home Health Services	10%	3
Environmental Health Services	7%	2
Hospice Services	7%	2
Pharmacy Services	7%	2
Workplace Health and Safety Services	3%	1
<i>Other Community Health Services (see open-ended responses)</i>	13%	4
<b>Open-Ended Responses</b>		
<ul style="list-style-type: none"> <li>There are no services that speak to population health. There is no linking of services in some areas for a unified effort.</li> <li>1. OB/GYN Care for population as a whole (including high risk case management by OB/GYN physicians) and 2) Inpatient Behavioral Health Care (local, short term).</li> <li>It is my opinion that no matter what quality of health care is offered by Riverside, the distance of the new hospital is just too far.</li> <li>In-patient psychiatric capacity on the Shore.</li> </ul>		

*Note: When interpreting the survey results, please note that although the relative number of responses received for each item is instructive, it is not a definitive measure of the relative importance of one issue compared to another.*

<sup>10</sup> Thirty (30) of the 31 survey respondents answered this question.

## Part II. Community Indicator Profile

This section of the report provides a quantitative profile of the study region based on a wide array of community health indicators. To produce the profile, Community Health Solutions analyzed data from multiple sources. By design, the analysis does not include every possible indicator of community health. The analysis is focused on a set of indicators that provide broad insight into community health, and for which there were readily available data sources.

The results of this profile can be used to evaluate community health status compared to the Commonwealth of Virginia overall. The results can also be helpful for determining the number of people within the study region affected by specific health concerns. In addition, the results can be used alongside the Community Insight Survey results and the zip code level maps to help inform action plans for community health improvement. This section includes nine profiles as follows:

1. Health Demographic Snapshot
2. Mortality Profile
3. Maternal and Infant Health Profile
4. Preventable Hospitalization Profile
5. Behavioral Health Hospital Discharge Profile
6. Adult Health Risk Factor Profile
7. Child Health Risk Factor Profile
8. Uninsured Profile
9. Medically Underserved Profile

## 1. Health Demographic Snapshot

Community health is driven in large part by community demographics. The age, sex, race, ethnicity, income and education status of a population are strong predictors of community health status and community health needs. *Exhibit II-1* presents a snapshot of key health-related demographics of the study region. As of 2011, the study region included an estimated 42,856 people. Compared to the Commonwealth of Virginia as a whole, the study region is more sparsely populated, and has (proportionally) more seniors age 65+ and Black/African American residents. The study region also has lower income levels, and (proportionally) more adults without a high school education, than Virginia as a whole. *Note: Maps 1-13 in Appendix A show the geographic distribution of the population by zip code.*

**Exhibit II-1.  
Health Demographic Snapshot, 2011**

Indicator	Study Region	Virginia
<b>Population Counts</b>		
Population	42,856	8,120,937
Children Age 0-17	9,458	1,910,883
Adults Age 18-29	6,227	1,367,779
Adults Age 30-44	7,086	1,687,883
Adults Age 45-64	12,110	2,139,219
Seniors Age 65+	7,971	1,014,213
Female	21,815	4,130,586
Male	21,038	3,990,349
Asian	253	446,480
Black/African American	13,099	1,575,045
White	27,049	5,568,689
Other or Multi-Race	2,454	530,708
Hispanic Ethnicity <sup>11</sup>	3,531	684,450
Low Income Households (Households with Income < \$25,000)	4,968	561,807
Population Age 25+ Without a High School Diploma	5,993	697,401
<b>Population Rates</b>		
Population Density (pop. per sq. mile)	61.7	201.7
Children Age 0-17 pct. of Total Pop.	22%	24%
Adults Age 18-29 pct. of Total Pop.	15%	17%
Adults Age 30-44 pct. of Total Pop.	17%	21%
Adults Age 45-64 pct. of Total Pop.	28%	26%
Seniors Age 65+ pct. of Total Pop.	19%	12%
Female pct. of Total Pop.	51%	51%
Male pct. of Total Pop.	49%	49%
Asian pct. of Total Pop.	1%	5%
Black/African American pct. of Total Pop.	31%	19%
White pct. of Total Pop.	63%	69%
Other or Multi-Race pct. of Total Pop.	6%	7%
Hispanic Ethnicity pct. of Total Pop.	8%	8%
Per Capita Income	\$24,466	\$33,364
Median Household Income	\$41,478	\$63,002
Low Income Households (Households with Income < \$25,000) pct. of Total Households	26%	18%
Pop. Age 25+ Without a High School Diploma pct. Total Pop. Age 25+	20%	13%

*Source: Community Health Solutions analysis of data from Alteryx, Inc.*

<sup>11</sup>Classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.

## 2. Mortality Profile

As shown in *Exhibit II-2*, the study region had 517 total deaths in 2010. The leading causes of death were heart disease (121), malignant neoplasm (cancer) (109), and cerebrovascular disease (stroke) (41). The study region age-group death rates per 100,000 population were higher than the statewide rates for adults age 45-64 (and comparable for seniors age 65+).<sup>12</sup> *Note: Maps 14-17 in Appendix A show the geographic distribution of deaths by zip code.*

**Exhibit II-2.  
Mortality Profile, 2010**

Indicators	Study Region	Virginia
<b>Total Deaths</b>		
<i>Deaths by All Causes</i>	517	58,841
<b>Deaths by Top 14 Causes</b>		
Heart Disease Deaths	121	13,332
Malignant Neoplasms Deaths	109	13,958
Cerebrovascular Diseases Deaths	41	3,259
Chronic Lower Respiratory Diseases Deaths	34	2,957
Alzheimer's Disease Deaths	33	1,842
Unintentional Injury Deaths	27	2,571
Nephritis and Nephrosis Deaths	17	1,583
Septicemia Deaths	8	1,358
Diabetes Mellitus Deaths	7	1,527
Parkinson's Disease Deaths	7	519
Primary Hypertension and Renal Disease Deaths	7	589
Suicide Deaths	5	982
Chronic Liver Disease Deaths	4	687
Influenza and Pneumonia Deaths	4	1,183
<b>Total Deaths by Age Group</b>		
Total Deaths Age 0-17	6	989
Total Deaths Age 18-29	3	1,001
Total Deaths Age 30-44	13	2,181
Total Deaths Age 45-64	95	12,036
Total Deaths Age 65+	400	42,626
<b>Death Rates by Age Group<sup>13</sup></b>		
Total Deaths per 100,000 pop. Age 0-17	N/A	53.4
Total Deaths per 100,000 pop. Age 18-29	N/A	73.3
Total Deaths per 100,000 pop. Age 30-44	N/A	133.4
Total Deaths per 100,000 pop. Age 45-64	675.1	554.9
Total Deaths per 100,000 pop. Age 65+	4,361.1	4,363.2

*Source: Community Health Solutions analysis of data from the Virginia Department of Health.*

<sup>12</sup> Age adjusted death rates were not calculated for this study because the study region is defined by zip codes, and available data are not structured to support calculation of age adjusted death rates at the zip code level. Age group death rates are used as an alternative.

<sup>13</sup> Rates are not calculated where n<30.

### 3. Maternal and Infant Health Profile

As shown in *Exhibit II-3A*, the study region had 468 total live births in 2010. Of these, 55 (12%) were born with low birth weight, 113 (24%) were births without early prenatal care, 277 (59%) were non-marital births, and 63 were births to teens [with most (46) involving older teens age 18 or 19]. Compared to Virginia as a whole, the study region had higher rates of low weight births, births without early prenatal care, and non-marital births. *Note: Maps 18-21 in Appendix A show the geographic distribution of births by zip code.*

**Exhibit II-3A.  
Maternal and Infant Health Profile, 2010**

Indicators	Study Region	Virginia
<b>Counts</b>		
Total Live Births	468	102,934
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	55	8,487
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks)	113	14,950
Non-Marital Births	277	36,532
Live Births to Teens Age 10-19	63	7,444
Live Births to Teens Age 18-19	46	5,418
Live Births to Teens Age 15-17	17	1,955
Live Births to Teens Age <15	0	71
<b>Rates<sup>14</sup></b>		
Live Birth Rate per 1,000 Population	10.2	12.9
Low Weight Births pct. of Total Live Births	12%	8%
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	24%	15%
Non-Marital Births pct. of Total Live Births	59%	35%

*Source: Community Health Solutions analysis of data from the Virginia Department of Health.*

For technical reasons, it was not possible to calculate teen pregnancy rates or five-year infant mortality rates at the zip code level.<sup>15</sup> As an approximation, *Exhibit II-3B* shows counts and rates of infant mortality and teen pregnancy for the localities that encompass the study region (Accomack and Northampton counties). Both the five-year infant mortality rates and teen pregnancy rates were higher than the statewide rates for both localities.

**Exhibit II-3B.  
Infant Mortality and Teen Pregnancy, 2010**

Indicators	Virginia	Accomack County	Northampton County
<b>Counts</b>			
Total Infant Deaths (2010)	695	3	0
Total Teenage (age 10-19) Pregnancies (2010)	10,970	68	29
<b>Rates</b>			
Five-Year Average Infant Mortality Rate per 1,000 Live Births (2006-2010)	7.1	9.1	8.9
Teenage (age 10-19) Pregnancy Rate per 1,000 Teenage Female Population (2010)	21.1	37.4	44.3

*Source: Community Health Solutions analysis of data from the Virginia Department of Health.*

<sup>14</sup> 2010 data were used to calculate study region rates.

<sup>15</sup> Infant mortality and teen pregnancy rates were not calculated for this study region because the study region is defined by zip codes, and available data are not structured to support calculation of rates at the zip code level. City/county level rates are provided as an alternative.

#### 4. Preventable Hospitalization Profile

The Agency for Healthcare Research and Quality (AHRQ) defines a set of conditions (called Prevention Quality Indicators, or 'PQIs') for which hospitalization should be avoidable with proper outpatient health care.<sup>16</sup> High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents.

As shown in *Exhibit II-4*, residents of the study region had 539 PQI hospital discharges in 2011, with most (318) involving seniors age 65+.<sup>17</sup> The leading diagnoses for these discharges were congestive heart failure (123), bacterial pneumonia (84), and chronic obstructive pulmonary disease (84). The study region PQI discharge rates per 100,000 population were higher than the statewide rates for adults age 45-64, and lower for seniors age 65+. *Note: Map 22 in Appendix A shows the geographic distribution of PQI discharges by zip code.*

**Exhibit II-4.**  
**Prevention Quality Indicator Hospital Discharges, 2011**

Indicators	Study Region	Virginia
<b>PQI Discharges by Age Group</b>		
<i>All Ages</i>	539	83,258
Total PQI Discharges-Age 0-17	3	335
Total PQI Discharges-Age 18-29	14	3,633
Total PQI Discharges-Age 30-44	24	7,175
Total PQI Discharges-Age 45-64	180	27,322
Total PQI Discharges-Age 65+	318	47,793
<b>PQI Discharges by Diagnosis</b>		
Congestive Heart Failure	123	18,962
Bacterial Pneumonia	84	16,196
Chronic Obstructive Pulmonary Disease (COPD)	84	11,422
Diabetes	80	11,314
Urinary Tract Infection	68	10,478
Adult Asthma	38	6,399
Dehydration	21	3,394
Hypertension	17	2,894
Angina	15	715
Perforated Appendix	9	1,484
<b>PQI Discharge Rates by Age Group<sup>18</sup></b>		
Total PQI Discharges per 100,000 pop. Age 0-17	N/A	17.5
Total PQI Discharges per 100,000 pop. Age 18-29	N/A	256.6
Total PQI Discharges per 100,000 pop. Age 30-44	N/A	425.1
Total PQI Discharges per 100,000 pop. Age 45-64	1,486.4	1,137.0
Total PQI Discharges per 100,000 pop. Age 65+	3,989.5	4,712.3

*Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc.*

<sup>16</sup> The PQI definitions are detailed in their specification of ICD-9 diagnosis codes and procedure codes. Not every hospital admission for congestive heart failure, bacterial pneumonia, etc. is included in the PQI definition; only those meeting the detailed specifications. Low birth weight is one of the PQI indicators, but for the purpose of this report, low birth weight is included in the Maternal and Infant Health Profile. Also, there are three diabetes-related PQI indicators which have been combined into one for the report. For more information, visit the AHRQ website at [www.qualityindicators.ahrq.gov/pqi\\_overview.htm](http://www.qualityindicators.ahrq.gov/pqi_overview.htm)

<sup>17</sup> Data include discharges from Virginia hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.

<sup>18</sup> Rates are not calculated where n<30.

## 5. Behavioral Health Hospital Discharge Profile

Behavioral health (BH) hospitalizations provide another important indicator of community health status. *Exhibit II-5* shows behavioral health hospital discharges for study region residents in 2011. Residents of the study region had 205 hospital discharges from Virginia hospitals for behavioral health conditions in 2011.<sup>19</sup> The leading diagnoses for these discharges were affective psychoses (65), general symptoms (48) and schizophrenic disorders (32). The study region behavioral health discharge rates per 100,000 population were lower than the statewide rates for those age groups where a rate was calculated (age 30+). *Note: Map 23 in Appendix A shows the geographic distribution of behavioral health discharges by zip code.*

**Exhibit II-5.  
Behavioral Health Hospital Discharges, 2011**

Indicators	Study Region	Virginia
<b>BH Discharges by Age Group</b>		
All Ages	205	64,853
Total BH Discharges-Age 0-17	10	7,996
Total BH Discharges-Age 18-29	17	12,295
Total BH Discharges-Age 30-44	53	15,059
Total BH Discharges-Age 45-64	81	19,662
Total BH Discharges-Age 65+	44	9,841
<b>BH Discharges by Top 10 Diagnoses</b>		
Affective Psychoses <sup>20</sup>	65	27,268
General Symptoms <sup>21</sup>	48	11,127
Schizophrenic Disorders	32	8,039
Alcoholic Psychoses	17	3,280
Other Nonorganic Psychoses	9	2,146
Depressive Disorder, Not Elsewhere Classified	8	2,784
Alcoholic Dependence Syndrome	7	2,161
Neurotic Disorders	3	1,350
Adjustment Reaction	2	2,123
Drug Psychoses	2	1,314
<b>BH Discharge Rates by Age Group<sup>22</sup></b>		
Total BH Discharges per 100,000 pop. Age 0-17	N/A	418.4
Total BH Discharges per 100,000 pop. Age 18-29	N/A	898.9
Total BH Discharges per 100,000 pop. Age 30-44	748.0	892.2
Total BH Discharges per 100,000 pop. Age 45-64	668.9	919.1
Total BH Discharges per 100,000 pop. Age 65+	552.0	970.3

*Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc.*

<sup>19</sup> Data include discharges from Virginia hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.

<sup>20</sup> Includes major depressive, bipolar affective and manic depressive disorders.

<sup>21</sup> This diagnosis includes symptoms, signs, abnormal results of laboratory or other investigative procedures, and ill-defined conditions regarding which no diagnosis classifiable elsewhere is recorded.

<sup>22</sup> Rates are not calculated where n<30.

## 6. Adult Health Risk Factor Profile

This section examines health risks for adults based on synthetic estimates developed by Community Health Solutions.<sup>23</sup> As shown in *Exhibit II-6*, the estimates indicate that substantial numbers of adults in the study region may have health risks related to nutrition, weight, physical activity, tobacco and alcohol. In addition, substantial numbers of adults may have chronic conditions such as arthritis, high blood pressure, high cholesterol, asthma and diabetes. *Note: Maps 24-27 in Appendix A show the geographic distribution of selected adult health risks by zip code.*

**Exhibit II-6.  
Adult Health Risk Factors (Synthetic Estimates), 2011**

Indicators	Study Region Estimates (count)	Study Region Estimates (percent)
Estimated adults age 18+	33,392	100%
<b>Risk Factors. Adults Age 18+ estimated to...</b>		
Eat Less Than Five Servings of Fruits and Vegetables Per Day	25,497	76%
Be Overweight or Obese	20,267	61%
Have No Physical Activity in the Past 30 Days	8,667	26%
Be a Smoker	7,040	21%
Be at Risk for Binge Drinking	4,186	13%
<b>Chronic Conditions. Adults Age 18+ estimated to...</b>		
Have Arthritis (told by a doctor or other health professional)	11,148	33%
Have High Blood Pressure (told by a doctor or other health professional)	10,658	32%
Have High Cholesterol (told by a doctor or other health professional)	10,633	32%
Have Asthma (told by a doctor or other health professional)	4,222	13%
Have Diabetes (told by a doctor or other health professional)	3,463	10%
<b>General Health Status. Adults Age 18+ estimated to...</b>		
Be Limited in any Activities because of Physical, Mental or Emotional Problems	6,701	20%
Have Fair or Poor Health Status	6,147	18%

*Source: Community Health Solutions synthetic estimates.*

<sup>23</sup> Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using national and state survey results to predict the prevalence of the listed conditions in the local population. The survey data came from the CDC's Behavioral Risk Factor Surveillance Survey. Local demographics estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions.

## 7. Child Health Risk Factor Profile

This section examines a set of health risks for children based on synthetic estimates developed by Community Health Solutions. The particular risk indicators involve nutrition, physical activity and weight-related risks. These risks have received increasing attention as the population of American children have become more sedentary, more prone to unhealthy eating and more likely to develop unhealthy body weight. The long-term implications of these trends are serious, as these factors place children at higher risk for chronic disease both now and in adulthood.

*Exhibit II-7* shows the list of selected child health risk estimates for children age 10-17 in the study region. These estimates are based on statewide and regional survey data from a recent household survey on childhood obesity commissioned by the Virginia Foundation for Healthy Youth.<sup>24</sup> The results of the survey were published in May 2010. The estimates were produced by applying the regional estimates for eastern Virginia to the study region population estimates for 2011. Assuming that the survey estimates for eastern Virginia reflect the behaviors of children in the study region today, it is estimated that large numbers of children in the study region are not meeting recommendations for healthy eating, physical activity and healthy weight. *Note: Maps 28 and 29 in Appendix A show the geographic distribution of selected child health risks by zip code.*

**Exhibit II-7.  
Child Health Risk Factors (Synthetic Estimates) 2011**

Indicators	Study Region Estimates (count)	Study Region Estimates (percent)
Estimated Children Age 10-17	4,224	100%
<b>Estimated to...</b>		
Drink Soda or Eat Chips or Candy At Least Once Per Week	3,886	92%
Eat Less than the Recommended Intake of Fruits and Vegetables	3,717	88%
Be Less Physically Active than Recommended	1,436	34%
Watch Television Three or More Hours per Day	1,098	26%
Be Overweight or Obese <sup>25</sup>	1,014	24%
Play Video/Computer Games Three or More Hours per Day	676	16%

*Source: Community Health Solutions synthetic estimates.*

<sup>24</sup> Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using state and regional survey results to predict the prevalence of the listed conditions in the local population. The survey data came from Market Decisions' 2010 Obesity Survey commissioned by Virginia Foundation for Healthy Youth. Local demographic estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions.

<sup>25</sup> For children and adolescents (aged 2–19 years), the BMI value is plotted on the CDC growth charts to determine the corresponding BMI-for-age percentile. Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex.

## 8. Uninsured Profile

Decades of research show that health coverage matters when it comes to overall health status, access to health care, quality of life, school and work productivity and even mortality. *Exhibit II-8* shows synthetic estimates of the number of uninsured individuals in the study region as of 2011.<sup>26</sup> An estimated 8,960 (18%) nonelderly residents of the study region were uninsured at any point in time. This includes an estimated 1,108 children and 7,852 adults. Among both children and adults, the large majority of uninsured residents were estimated to have income at or below 200% of the federal poverty level (FPL).<sup>27</sup> *Note: Maps 30-33 in Appendix A show the geographic distribution of the uninsured population by zip code.*

**Exhibit II-8.  
Uninsured (Synthetic Estimates) 2011**

Indicators	Study Region
<b>Estimated Uninsured Counts</b>	
Uninsured Nonelderly Age 0-64	8,960
Uninsured Children Age 0-18	1,108
Uninsured Children 0- 200% Federal Poverty Level (FPL)	877
Uninsured Children <100% FPL	439
Uninsured Children 101-200% FPL	438
Uninsured Children 201-300% FPL	157
Uninsured Children 301%+ FPL	74
Uninsured Adults Age 19-64	7,852
Uninsured Adults 0-200% FPL	5,981
Uninsured Adults <100% FPL	3,367
Uninsured Adults 101-200% FPL	2,614
Uninsured Adults 201-300% FPL	1,168
Uninsured Adults 301%+ FPL	703
Uninsured Adults 19-64 0-138% FPL	5,007
<b>Estimated Uninsured Rates</b>	
Uninsured Nonelderly Percent	18%
Uninsured Children Percent	9%
Uninsured Adults Percent	20%

Source: Community Health Solutions synthetic estimates.

<sup>26</sup> Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using state survey results to predict the prevalence of the listed conditions in the local population. The statewide uninsured estimates were obtained from a report produced for the Virginia Health Care Foundation by Urban Institute. Local demographic estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions. The estimates do not explicitly account for either undocumented populations or acute drops in income due to the recession.

<sup>27</sup> Two hundred percent of the federal poverty level is defined as an annual income of \$44,700 for a family of four. For more information, please see: <http://aspe.hhs.gov/poverty/11poverty.shtml>

## 9. Medically Underserved Profile

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Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are designated by the U.S. Health Resources and Services Administration as being at risk for health care access problems. The designations are based on several factors including primary care provider supply, infant mortality, prevalence of poverty and the prevalence of seniors age 65+.

As shown in *Exhibit II-9*, both localities that encompass the study region have been fully designated as MUAs (Accomack and Northampton counties). For a more detailed description, visit the U.S. Health Resources and Service Administration designation webpage at <http://muafind.hrsa.gov/>.

**Exhibit II-9.**  
**Medically Underserved Areas**

Locality	MUA designation	Census Tracts
Accomack County	Full	12 of 12 Census Tracts
Northampton County	Full	4 of 4 Census Tracts

*Source: Community Health Solutions analysis of U.S. Health Resources and Services Administration data.*

## APPENDIX A: Zip Code Level Maps for the Study Region

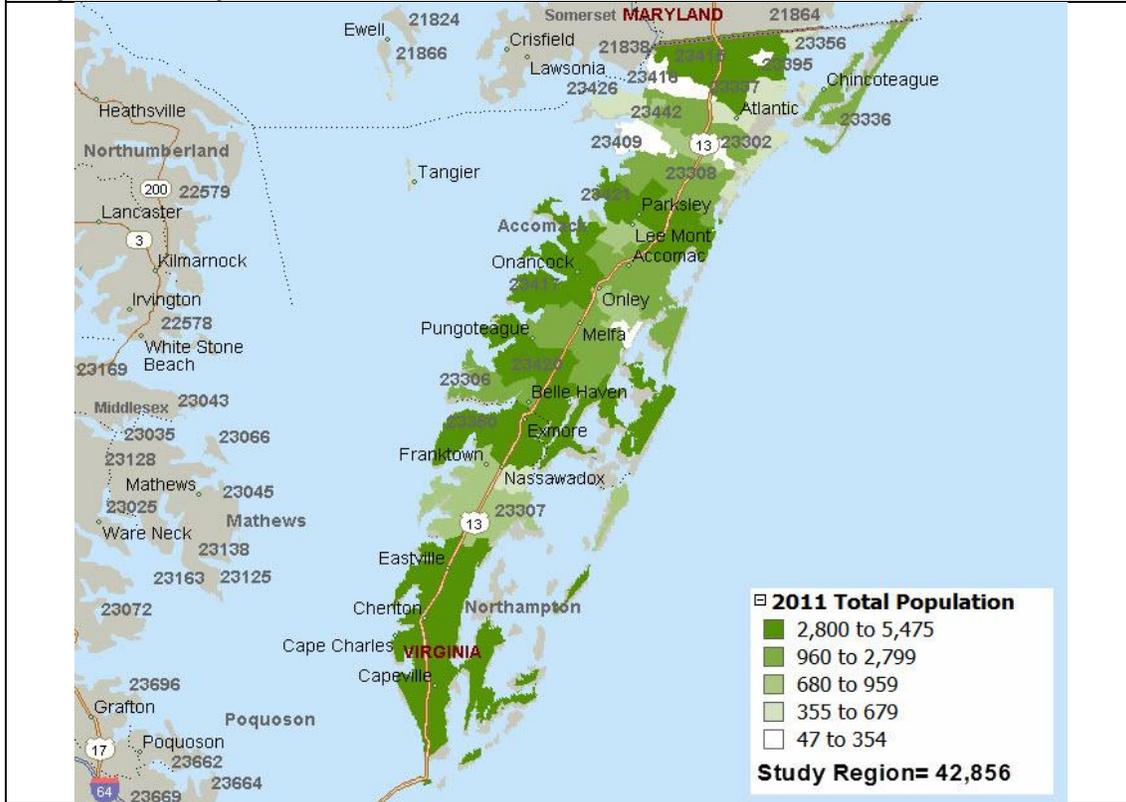
The zip code level maps in this section illustrate the geographic distribution of the study region population on key demographic and health indicators. The results can also be used alongside the Community Insight Survey (Part I) and the Community Indicator Profile (Part II) to help inform plans for community health initiatives. The underlying data for these maps are provided in a separate Microsoft Excel file. The maps in this section include the following for 2010/2011:

1. Total Population, 2011	19. Low Weight Births, 2010
2. Population Density, 2011	20. Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2010
3. Child Population Age 0-17, 2011	21. Births to Teen Mothers Under Age 18, 2010
4. Senior Population Age 65+, 2011	22. Prevention Quality Indicator (PQI) Hospital Discharges, 2011
5. Asian Population, 2011	23. Behavioral Health (BH) Hospital Discharges, 2011
6. Black/African American Population, 2011	24. Estimated Adults Age 18+ Overweight or Obese, 2011
7. White Population, 2011	25. Estimated Adult Age 18+ Smokers, 2011
8. Other or Multi-Race Population, 2011	26. Estimated Adults Age 18+ with Diabetes, 2011
9. Hispanic Ethnicity Population, 2011	27. Estimated Adults Age 18+ with High Blood Pressure, 2011
10. Per Capita Income, 2011	28. Estimated Children Age 10-17 Overweight or Obese, 2011
11. Median Household Income, 2011	29. Estimated Children Age 10-17 Not Meeting Physical Activity Targets, 2011
12. Low Income Households (Households with Income <\$25,000), 2011	30. Estimated Uninsured Nonelderly Age 0-64, 2011
13. Population Age 25+ Without a High School Diploma, 2011	31. Estimated Uninsured Nonelderly Age 0-64 and Income 0-200% Federal Poverty Level, 2011
14. Total Deaths, 2010	32. Estimated Uninsured Children Age 0-18, 2011
15. Heart Disease Deaths, 2010	33. Estimated Uninsured Children Age 0-18 and Income 0-200% Federal Poverty Level, 2011
16. Malignant Neoplasm (Cancer) Deaths, 2010	34. Estimated Uninsured Adults Age 19-64, 2011
17. Cerebrovascular Disease (Stroke) Deaths, 2010	35. Estimated Uninsured Adults Age 19-64 and Income 0-138% Federal Poverty Level
18. Total Live Births, 2010	

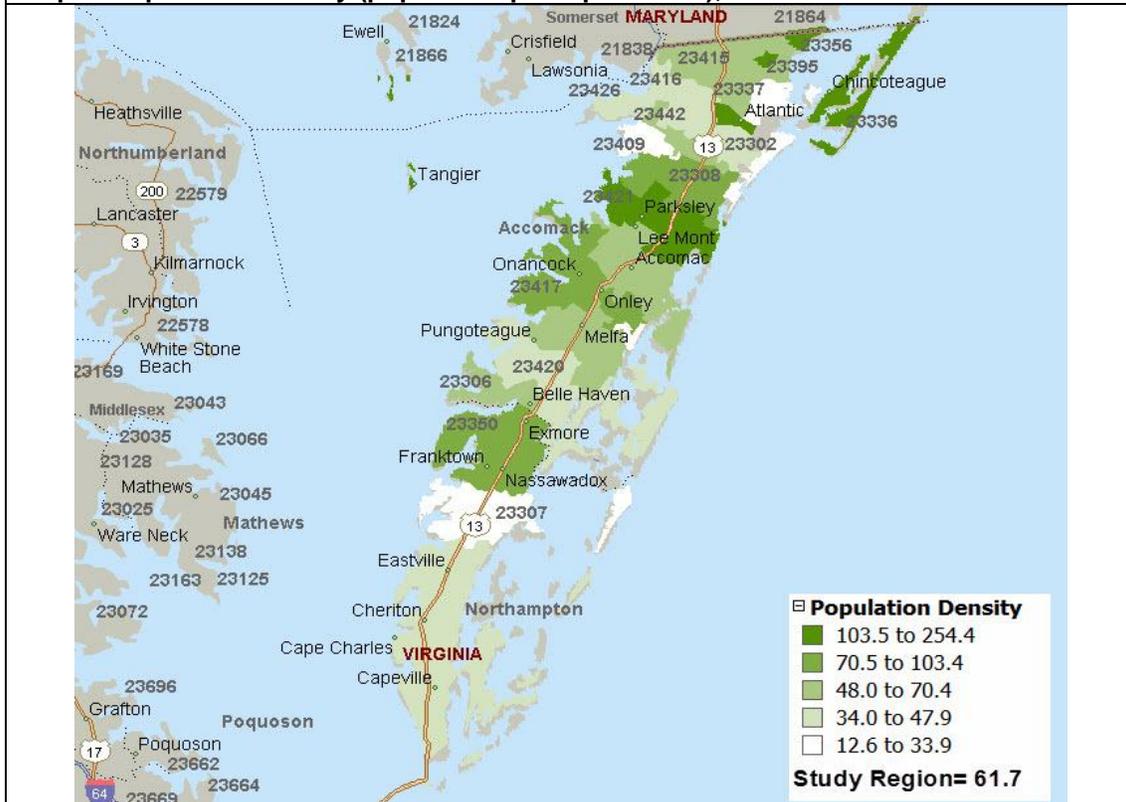
### \*\*Technical Notes\*\*

1. The study focuses on the Riverside Shore Memorial Hospital (SMH) service area of 30 zip codes which fall within Accomack and Northampton counties.
2. With the exception of per capita income and median household income, the maps show counts rather than rates. Rates are not mapped at the zip code level because in some zip codes the population is too small to support rate-based comparisons.

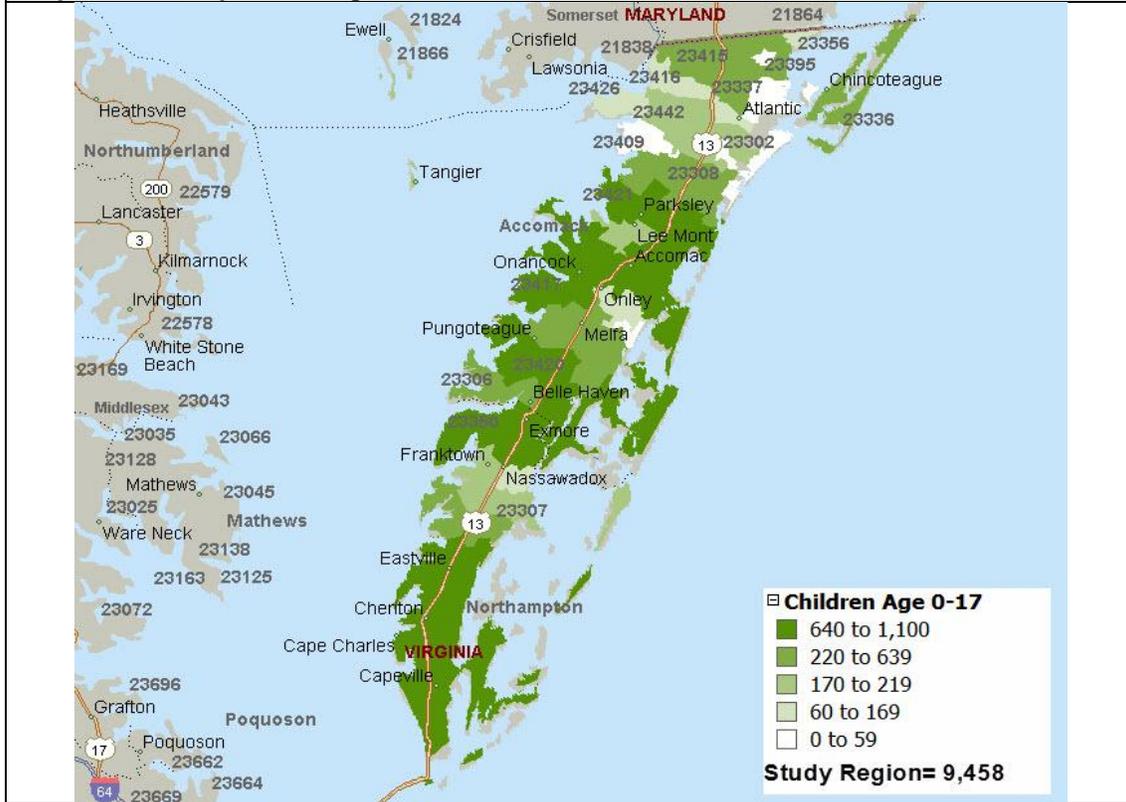
**Map 1: Total Population, 2011**



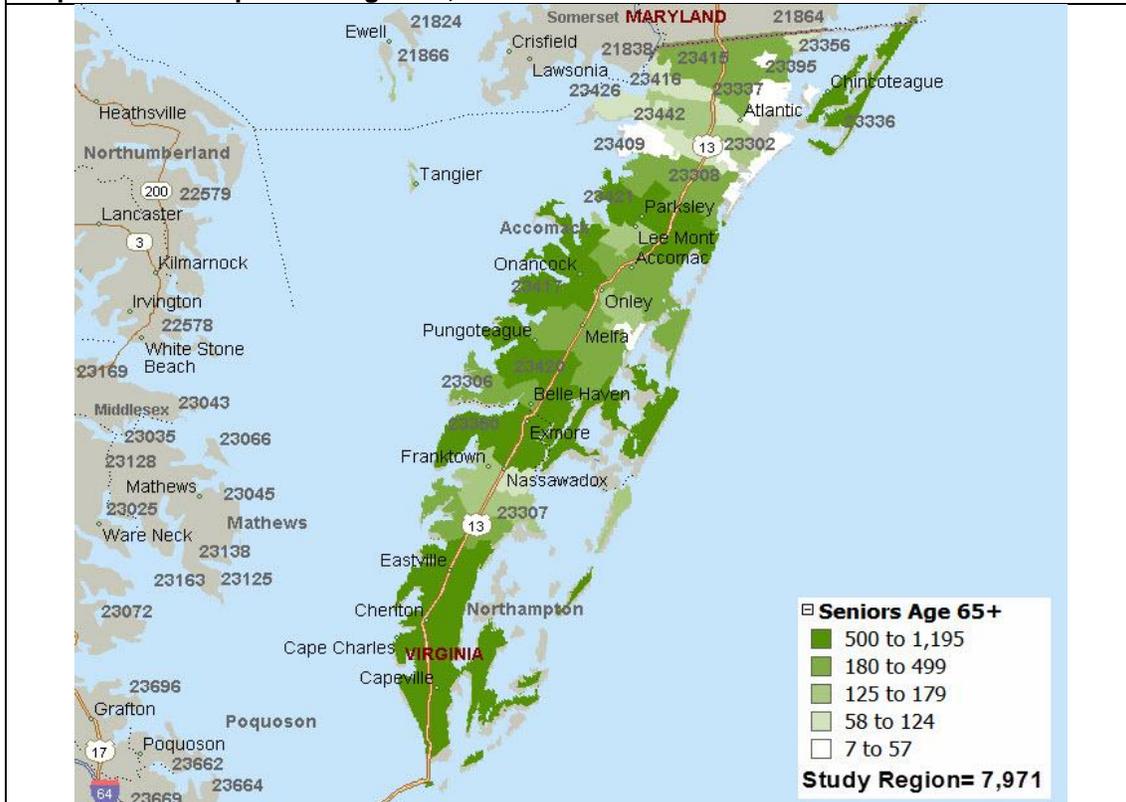
**Map 2: Population Density (population per square mile), 2011**



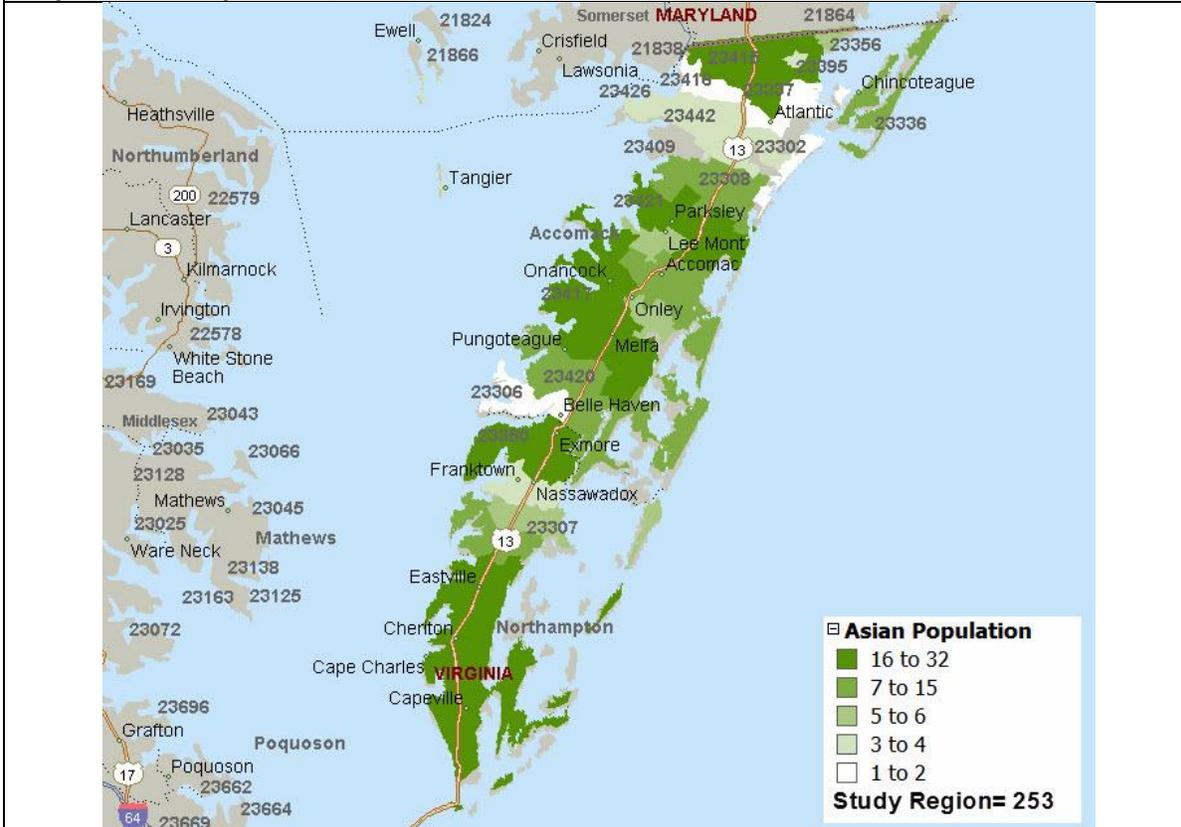
**Map 3: Child Population Age 0-17, 2011**



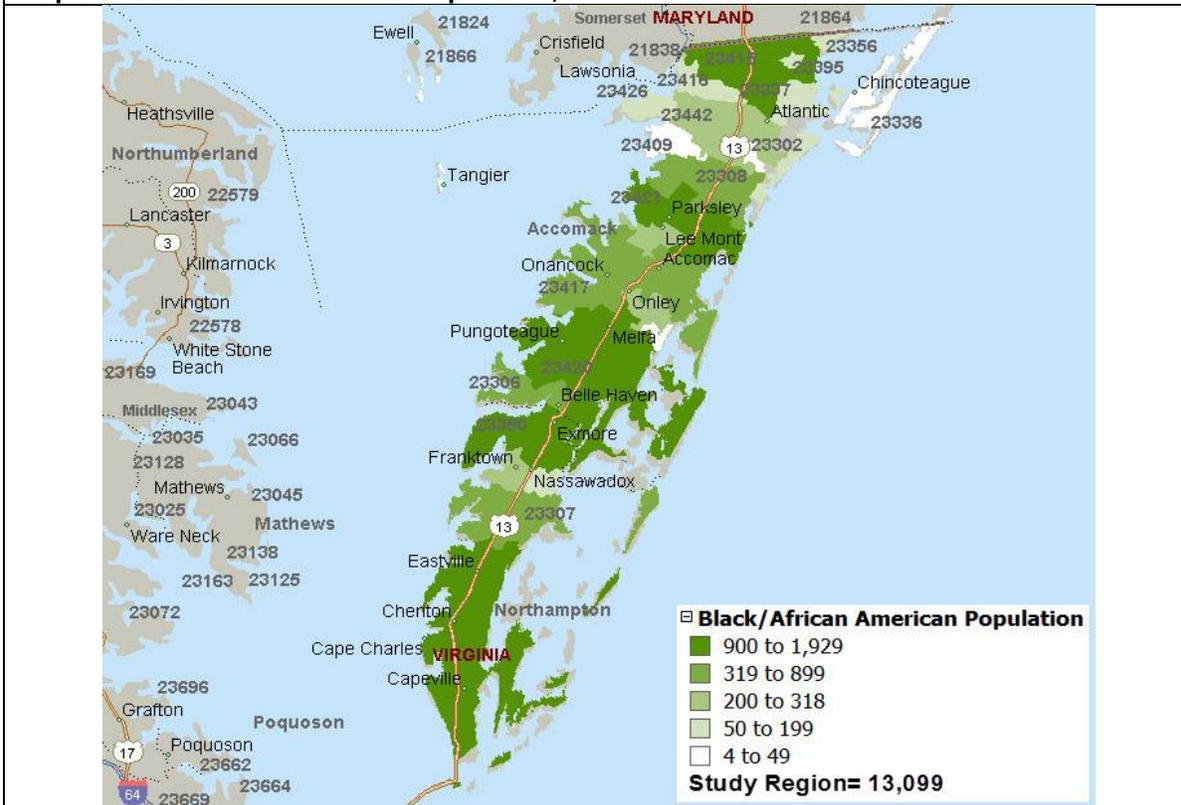
**Map 4: Senior Population Age 65+, 2011**



**Map 5: Asian Population, 2011\***



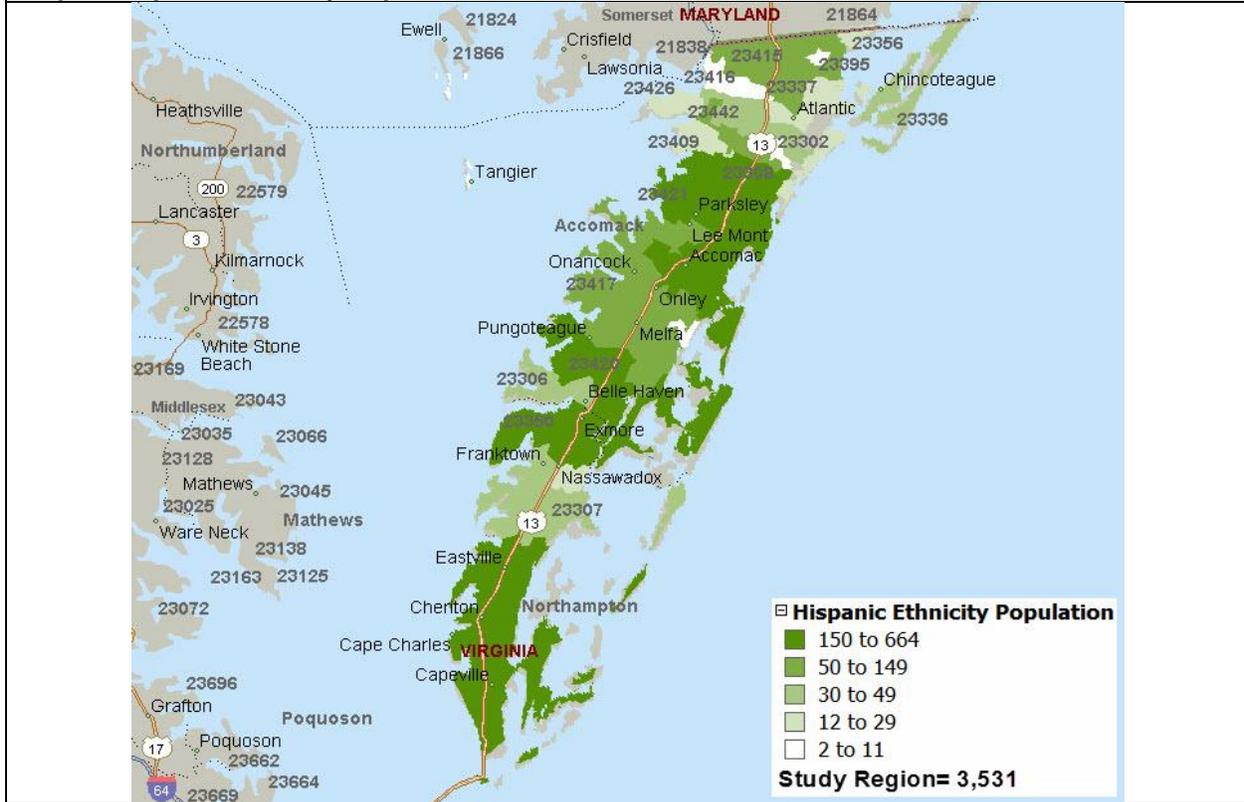
**Map 6: Black/African American Population, 2011**



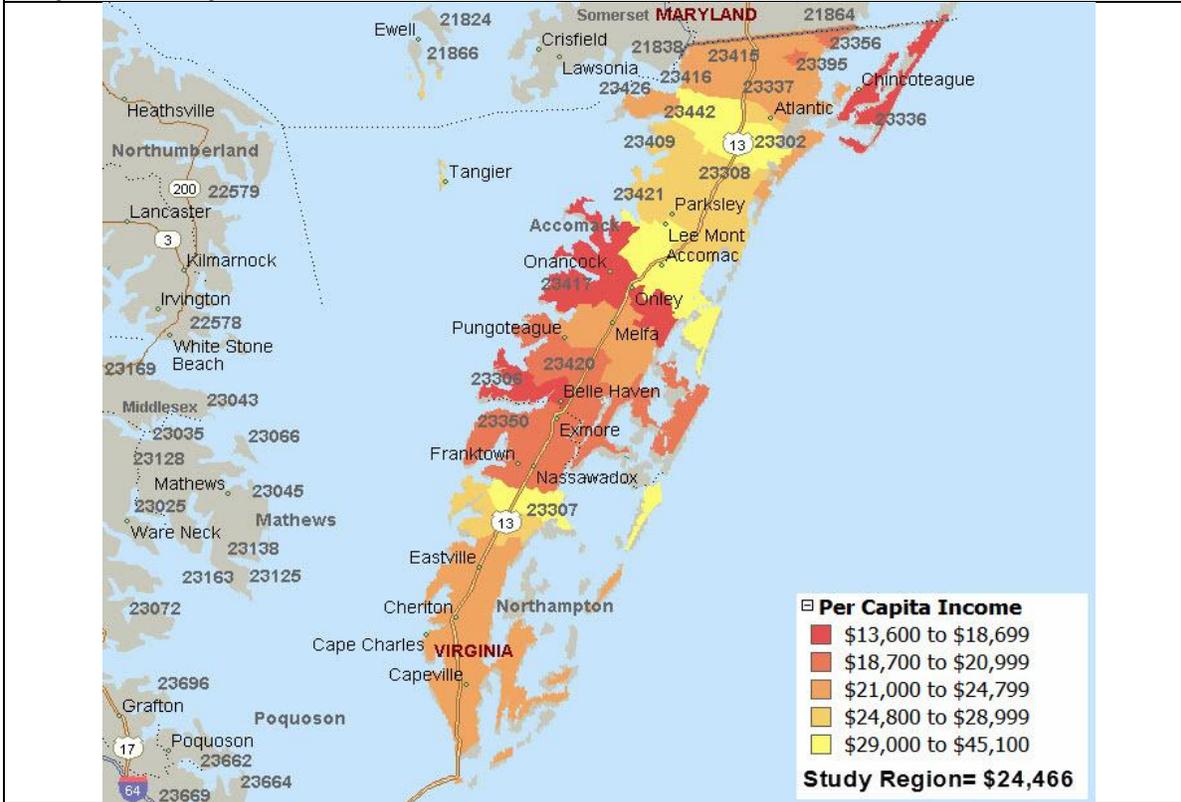
\*Note: There were no estimated residents in this racial group for zip codes 23404, 23302, 23358, and 23409.



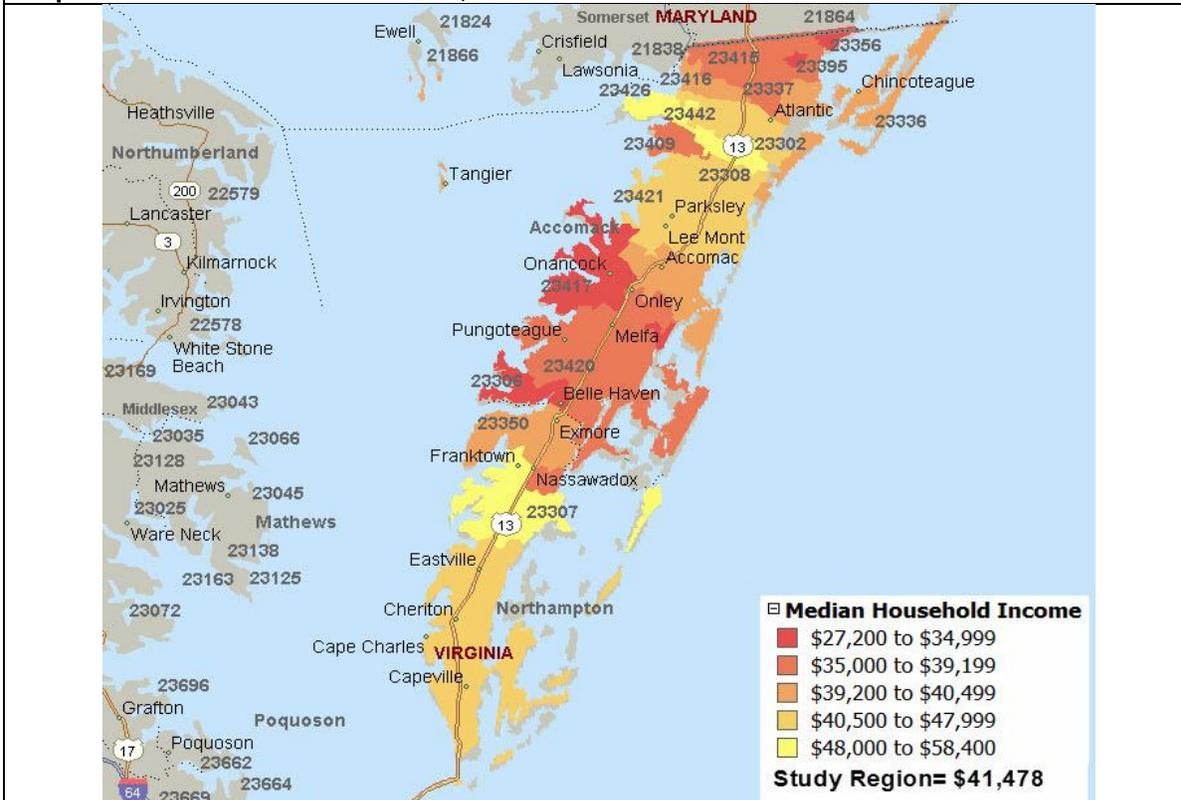
**Map 9: Hispanic Ethnicity Population, 2011**



**Map 10: Per Capita Income, 2011\***

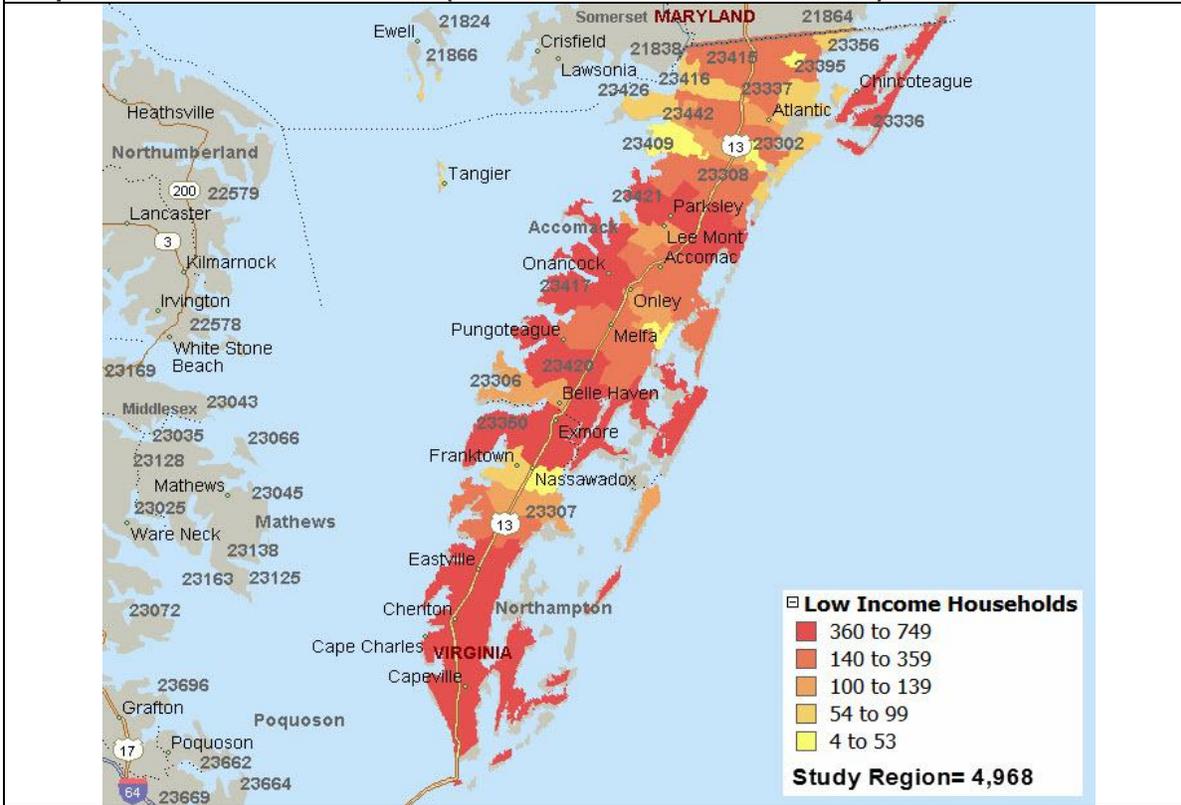


**Map 11: Median Household Income, 2011\***

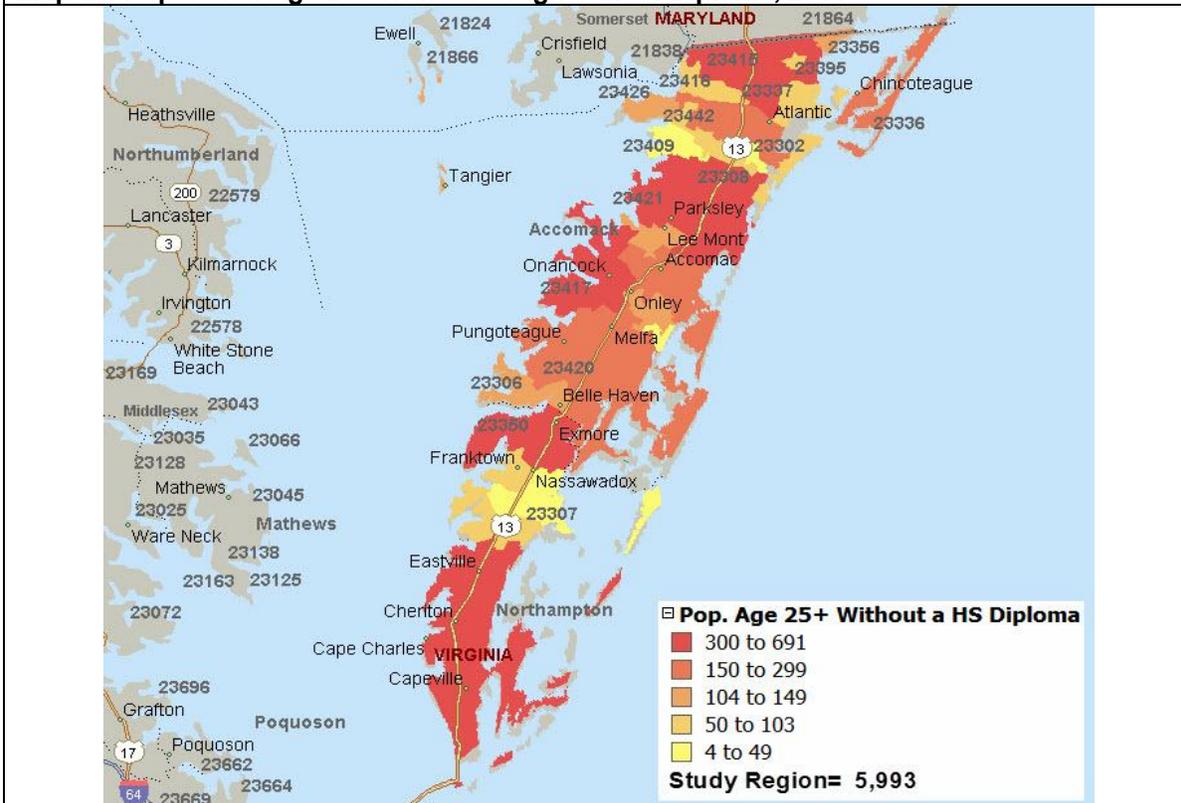


\*Red indicates an area of higher risk on these maps.

**Map 12: Low Income Households (Households with Income <\$25,000), 2011\***

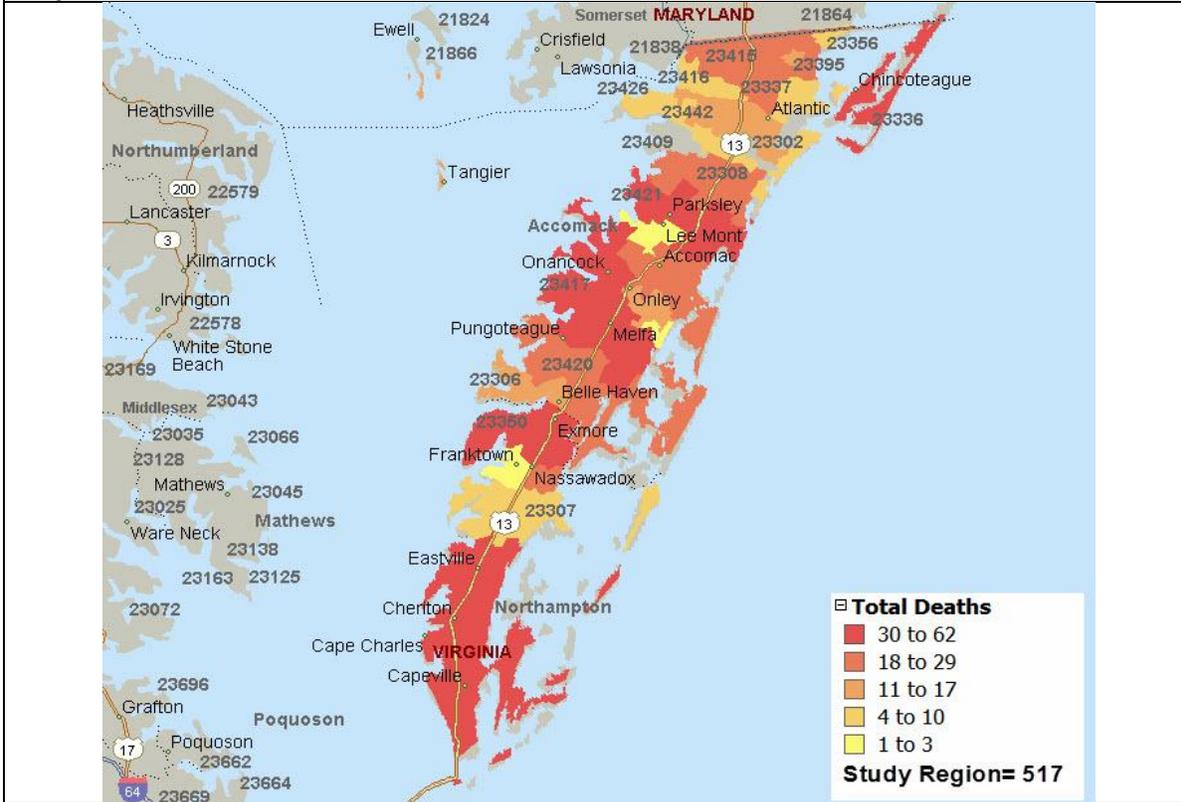


**Map 13: Population Age 25+ Without a High School Diploma, 2011\***

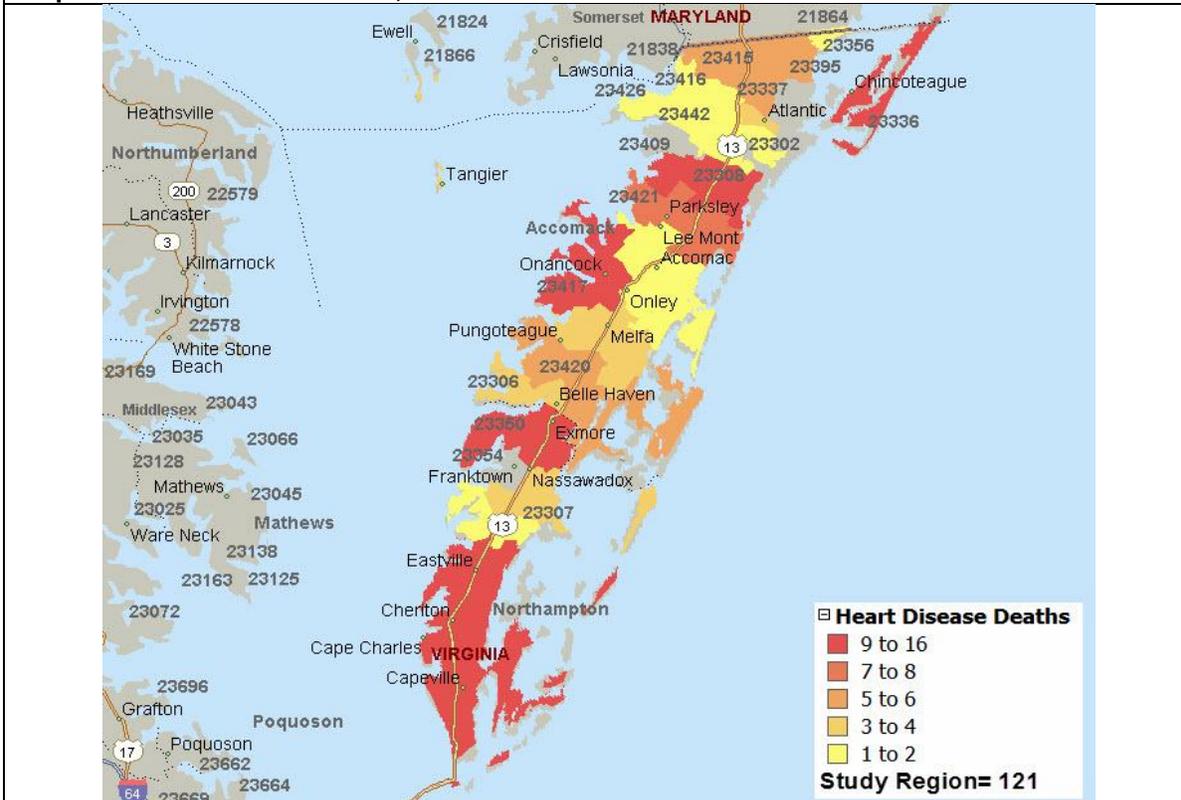


\*Red indicates an area of higher risk on these maps.

**Map 14: Total Deaths, 2010\***



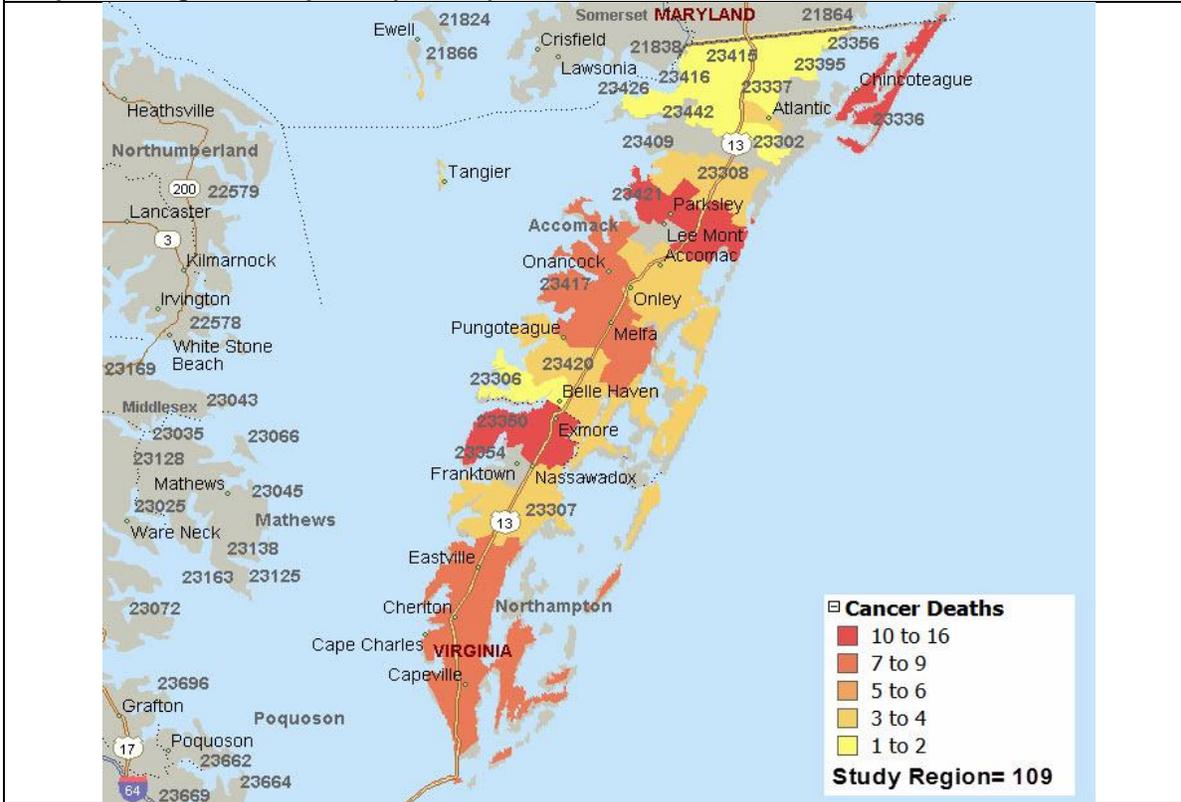
**Map 15: Heart Disease Deaths, 2010\*\***



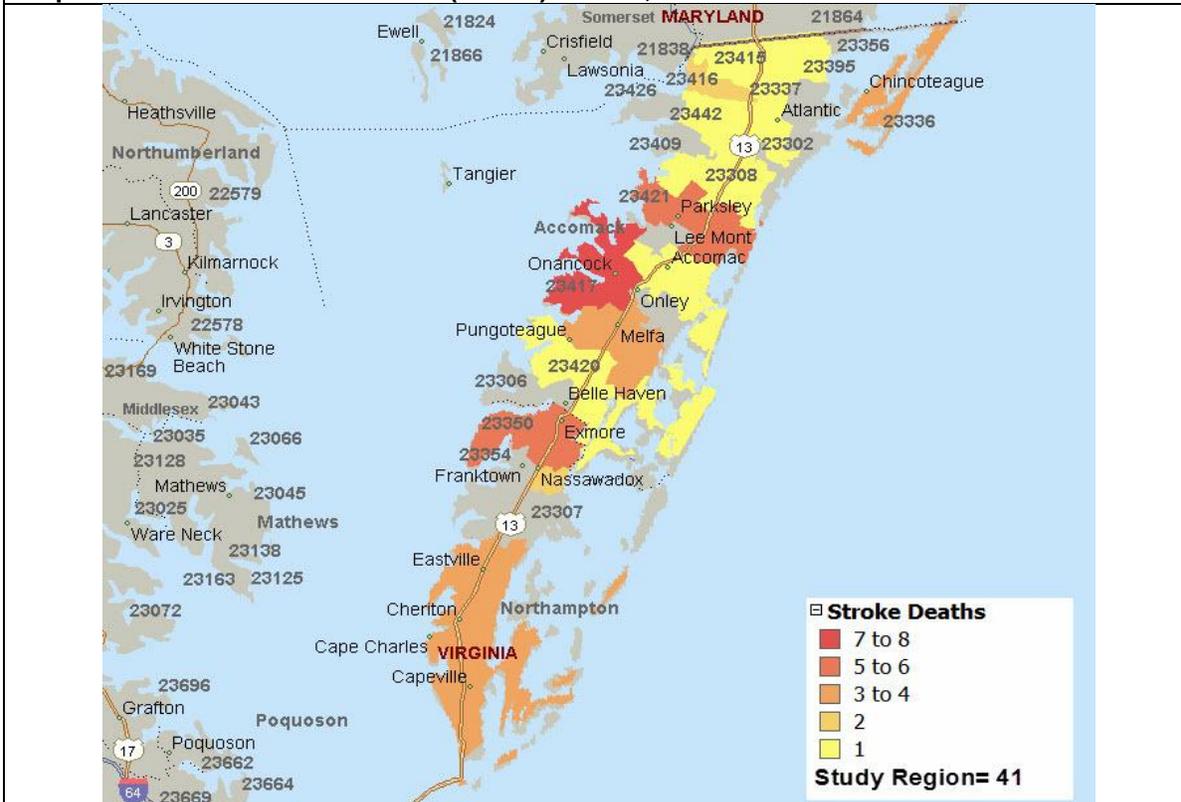
\* There were no reported deaths for zip codes 223302 and 23409.

\*\* There were no reported heart disease deaths for zip codes 23302, 23409, 23354 and 23337.

**Map 16: Malignant Neoplasm (Cancer) Deaths, 2010\***



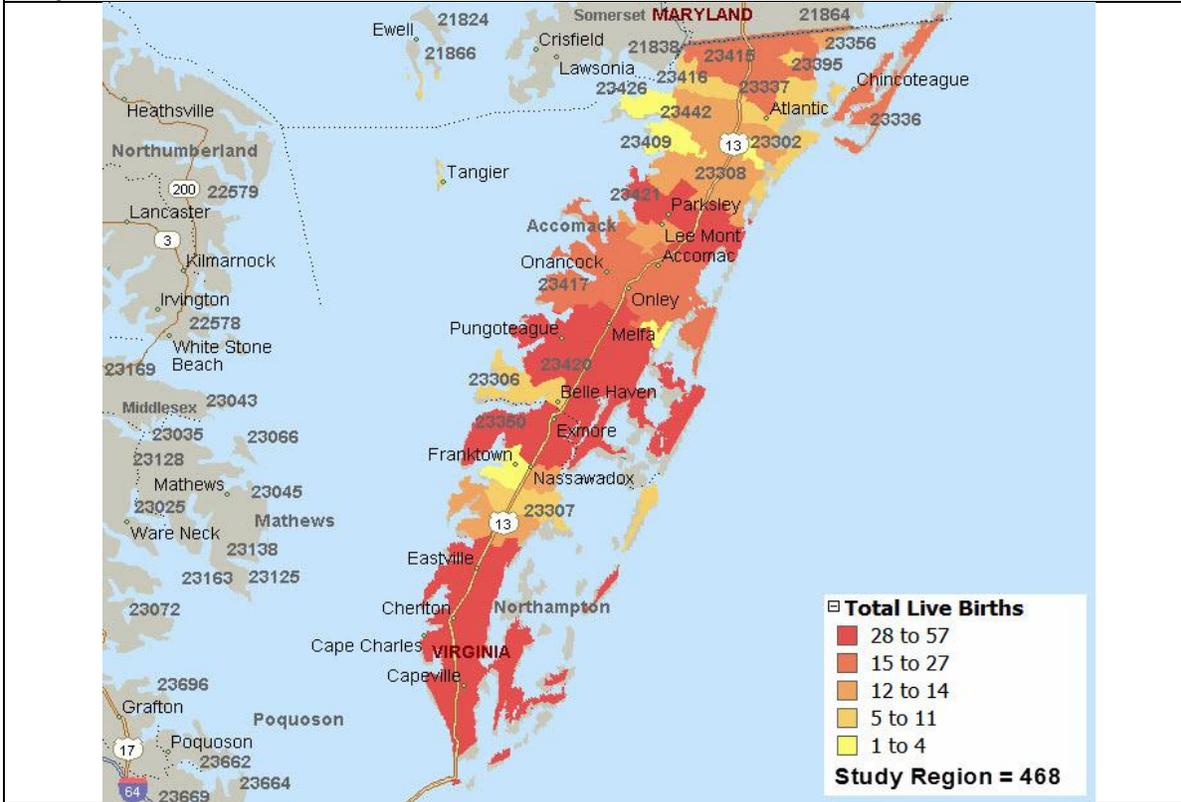
**Map 17: Cerebrovascular Disease (Stroke) Deaths, 2010\*\***



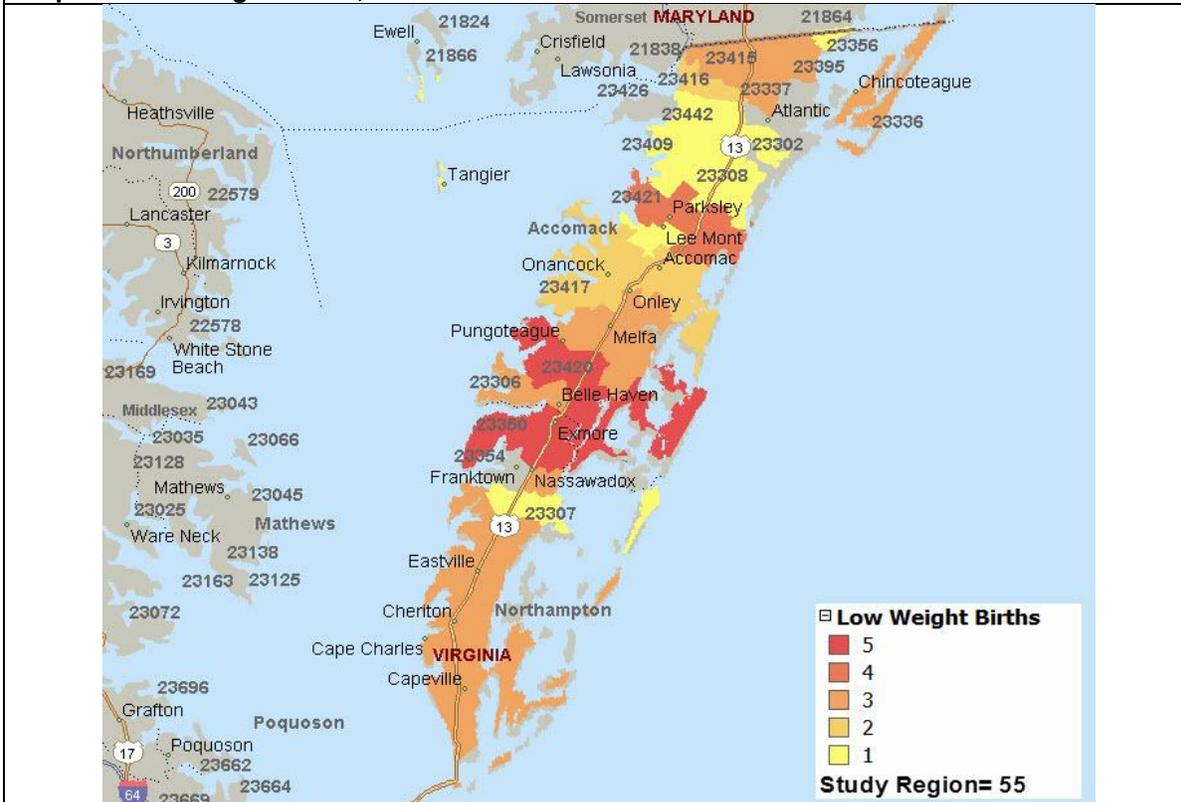
\* There were no reported cancer deaths for zip codes 23302, 23409, 23354, 23337, 23358, 23404, 23357, and 23359.

\*\* There were no reported stroke deaths for zip codes 23302, 23409, 23354, 23337, 23358, 23404, 23357, 23426, 23356, 23306, 23418, 23307, 23440, and 23405.

**Map 18: Total Live Births, 2010**

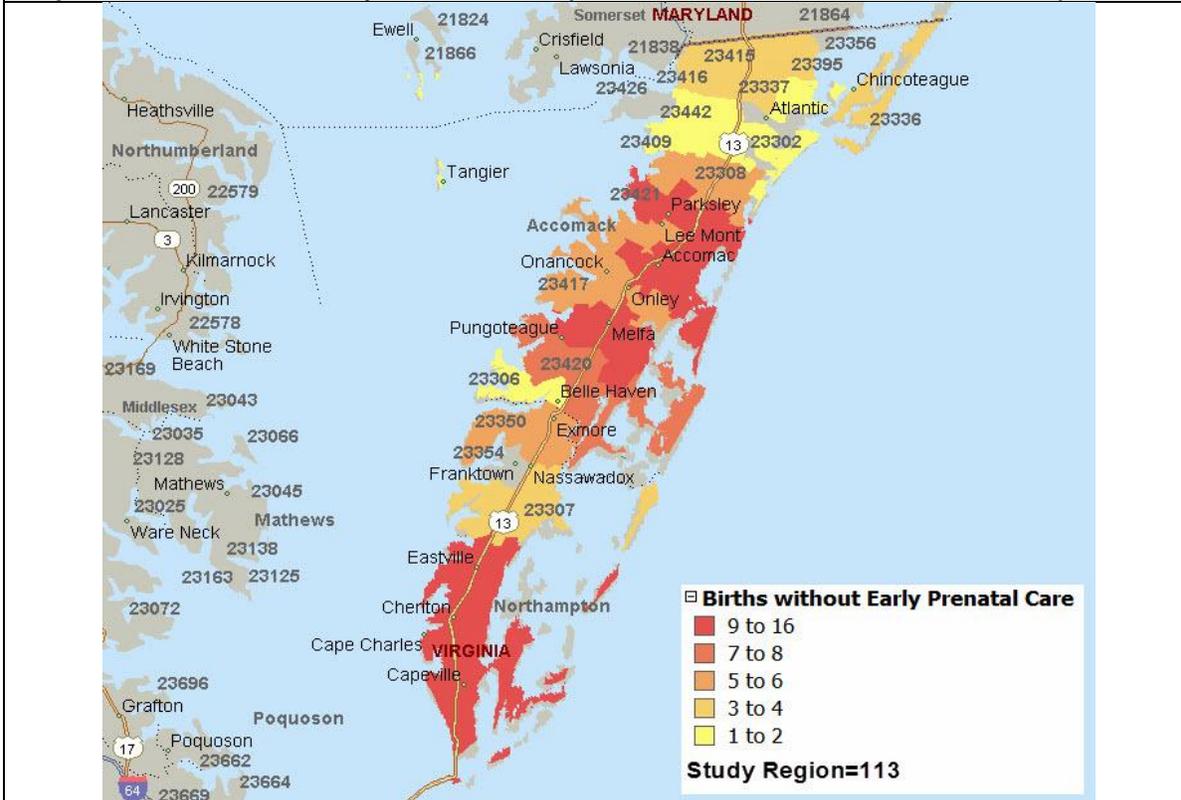


**Map 19: Low Weight Births, 2010\***

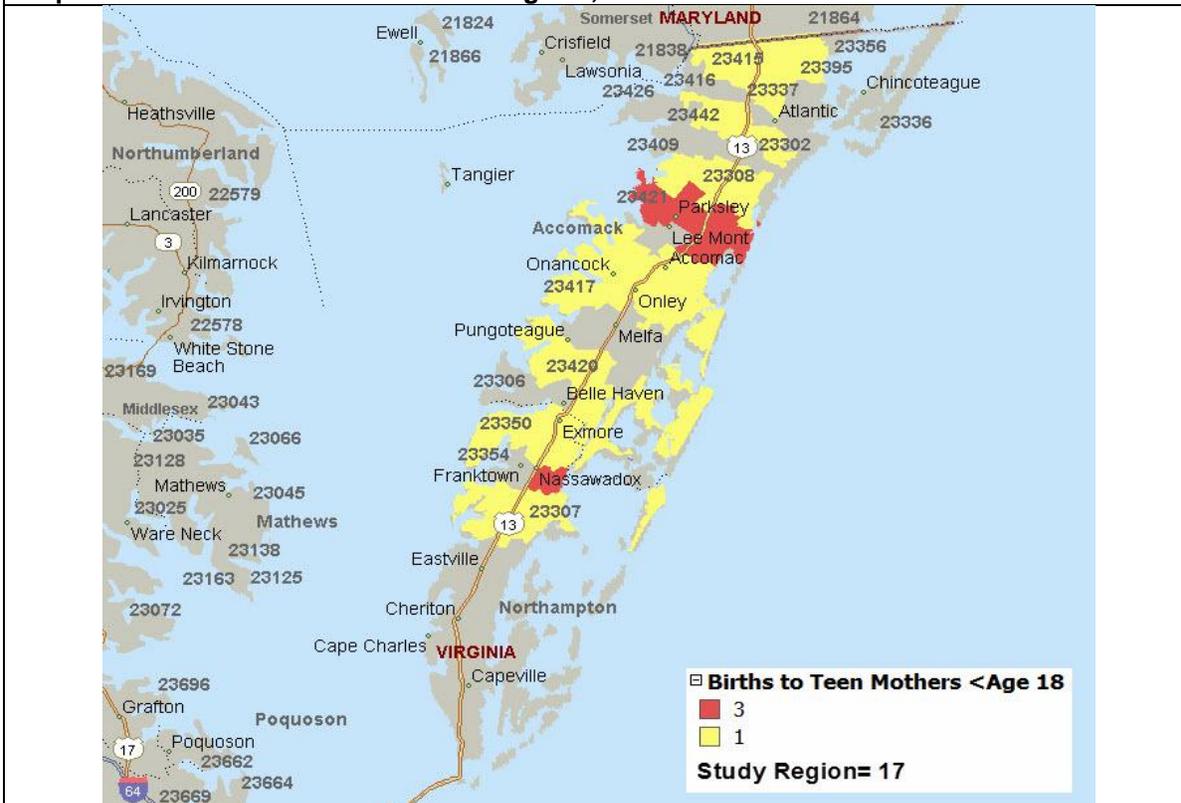


\*There were no reported low weight births for zip codes 23302, 23409, 23354, 23337, 23358, 23404, 23426, and 23303.

**Map 20: Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2010\***



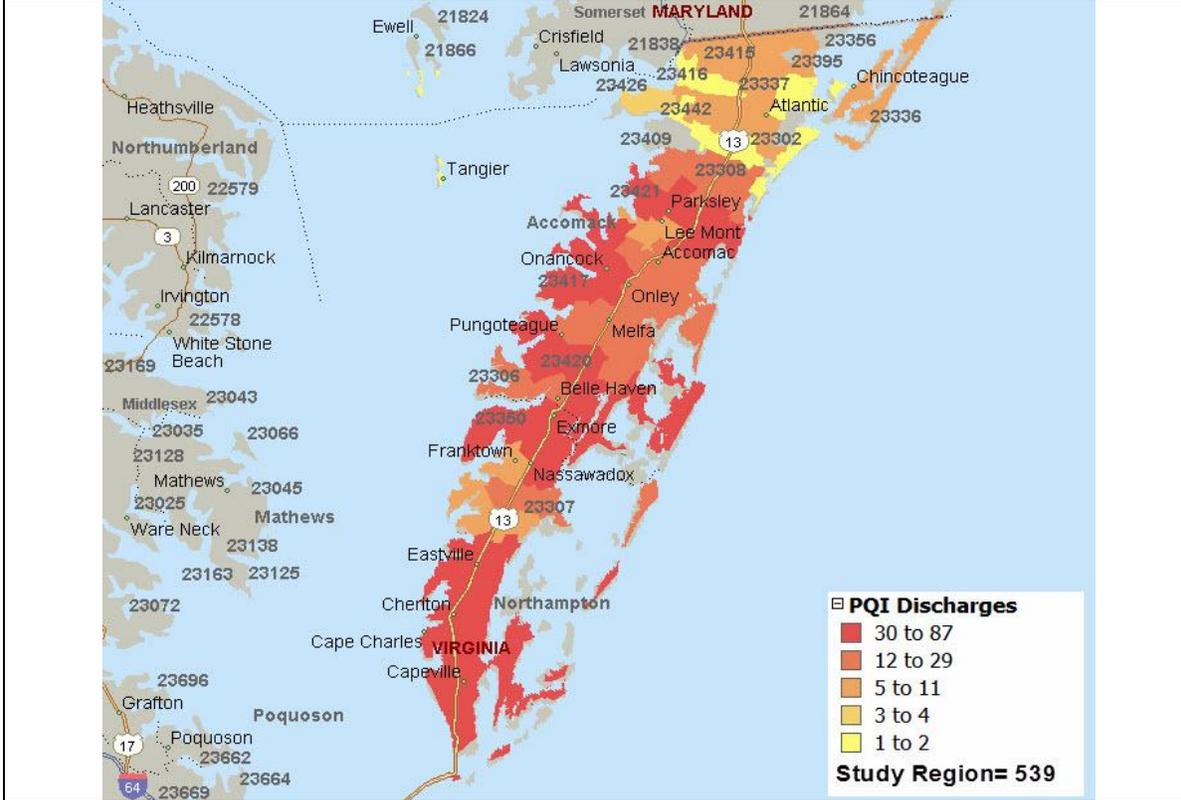
**Map 21: Births to Teen Mothers Under Age 18, 2010\*\***



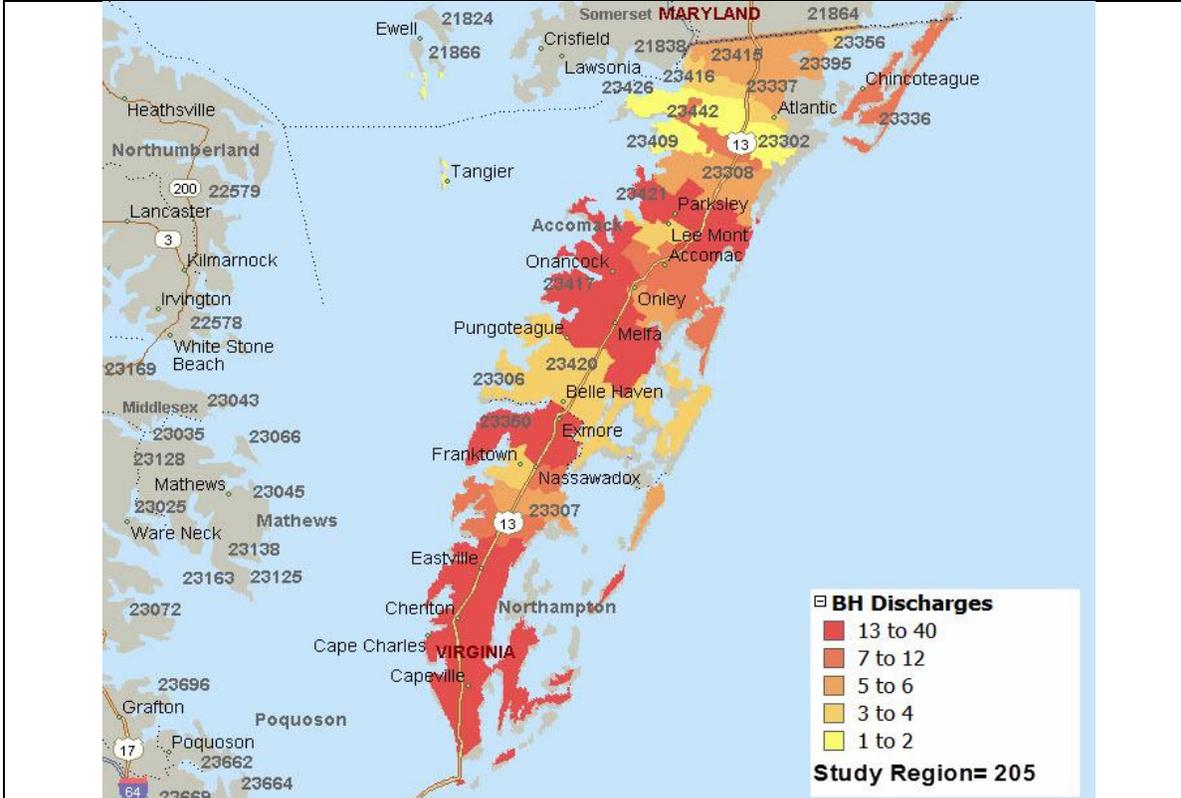
\* There were no reported births without early prenatal care for zip codes 23302, 23354, 23356, 23358, 23404, 23426 and 23303.

\*\* There were no reported births to teen mothers under age 18 for zip codes 23302, 23354, 23358, 23426, 23404, 23303, 23356, 23337, 23409, 23440, 23306, 23359, 23336, 23416, 23357, 23410, and 23310.

**Map 22: Prevention Quality Indicator (PQI) Hospital Discharges, 2011\***



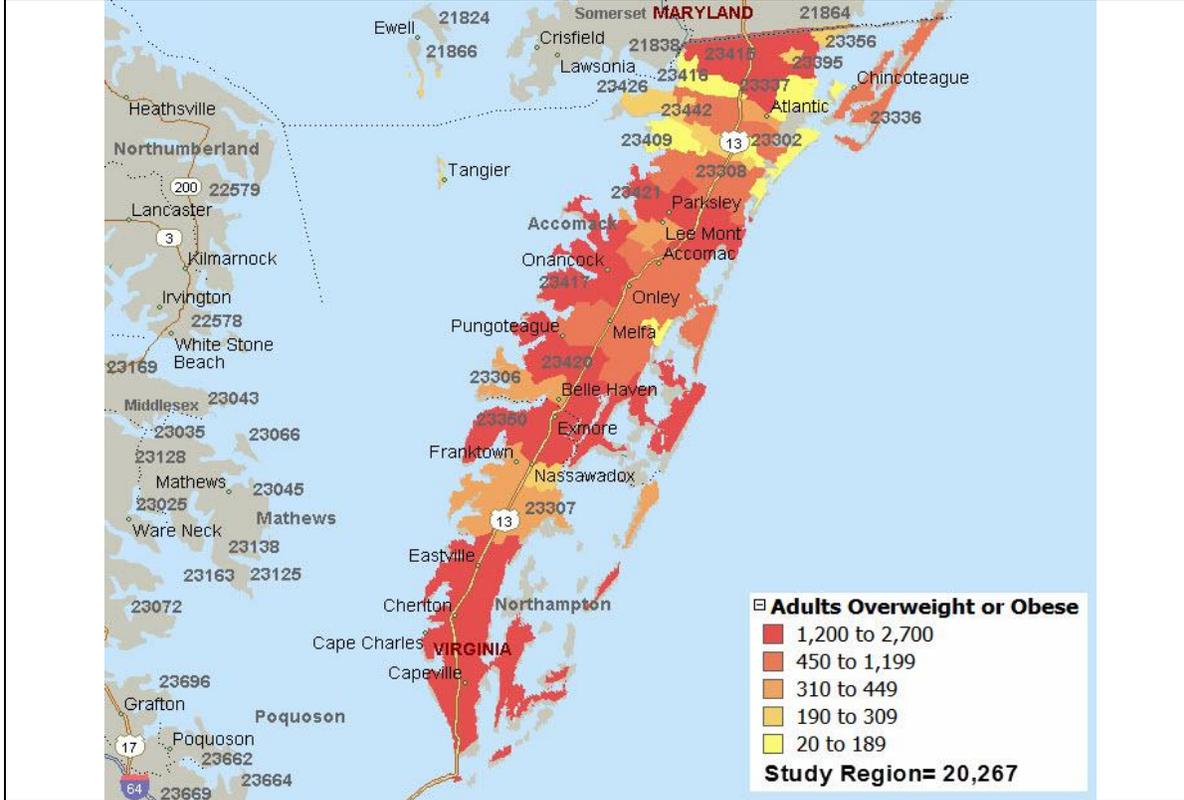
**Map 23: Behavioral Health (BH) Hospital Discharges, 2011\*\***



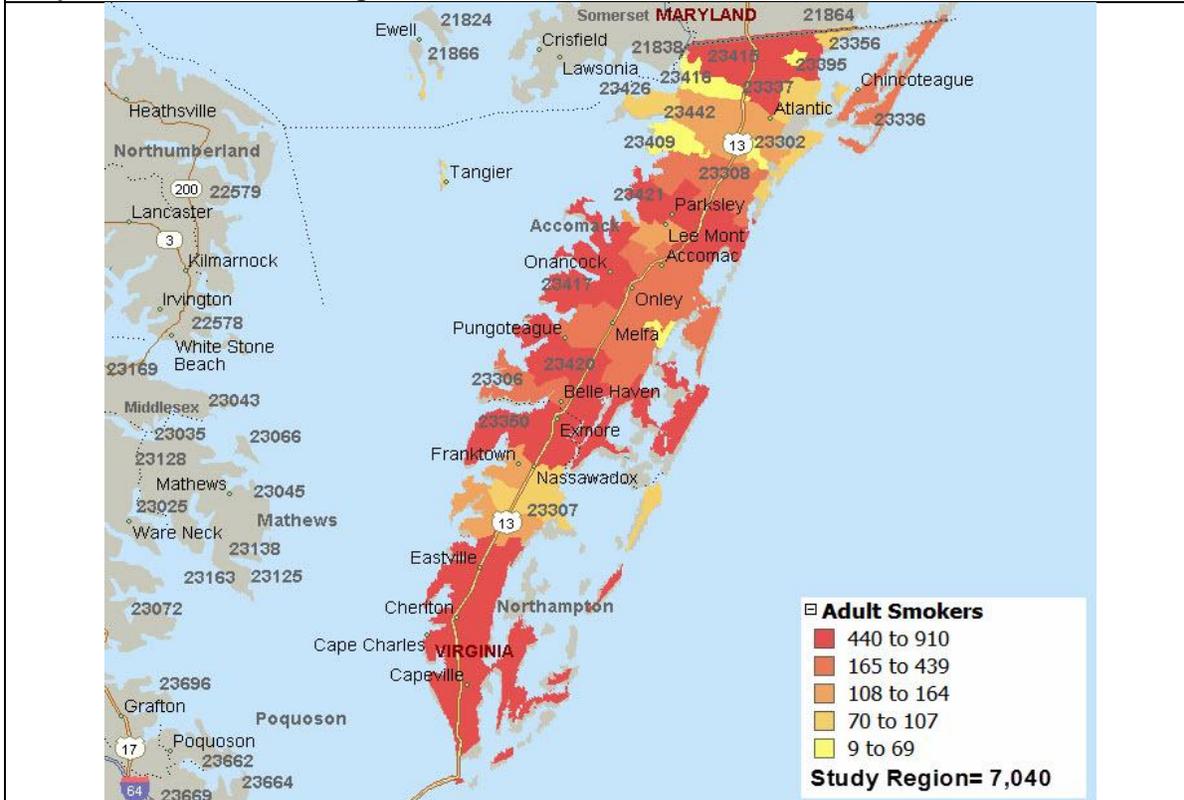
\* There were no reported PQI discharges for zip codes 23409, 23356, and 23404.

\*\* There were no reported BH discharges for zip codes 23404, 23395, 23337 and 23358.

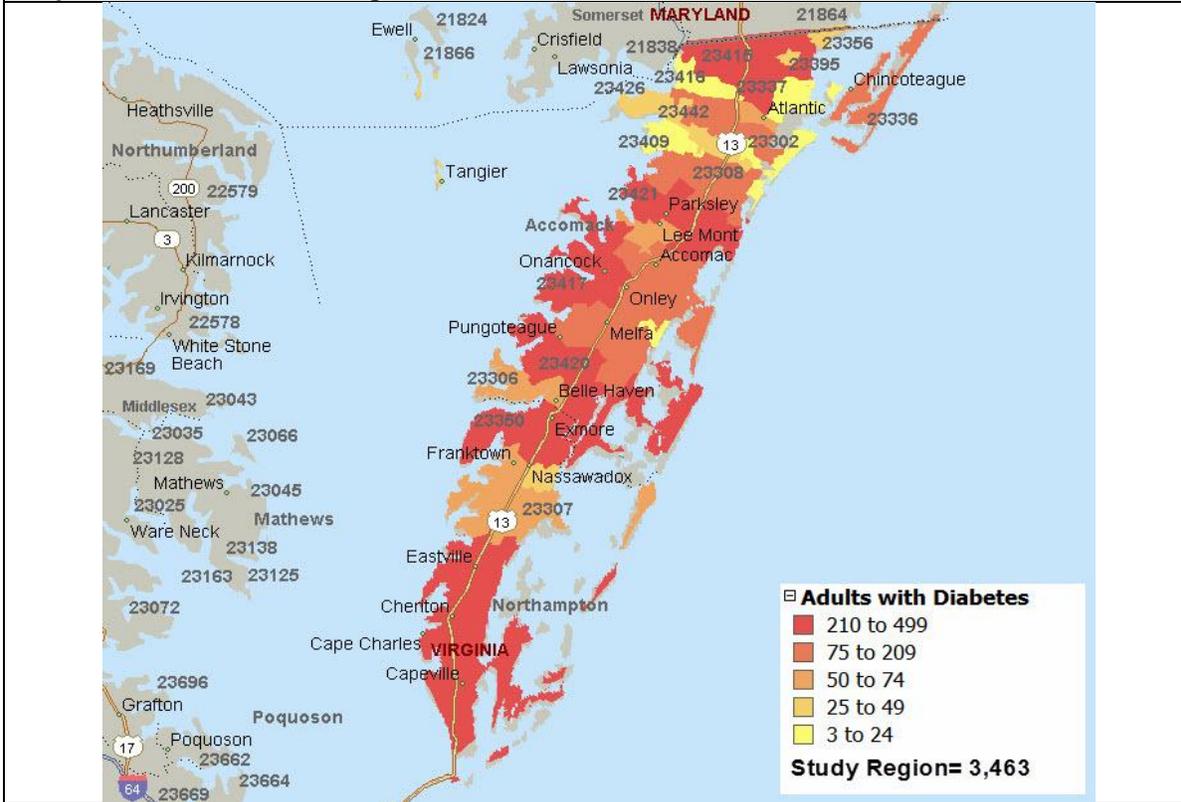
**Map 24: Estimated Adults Age 18+ Overweight or Obese, 2011**



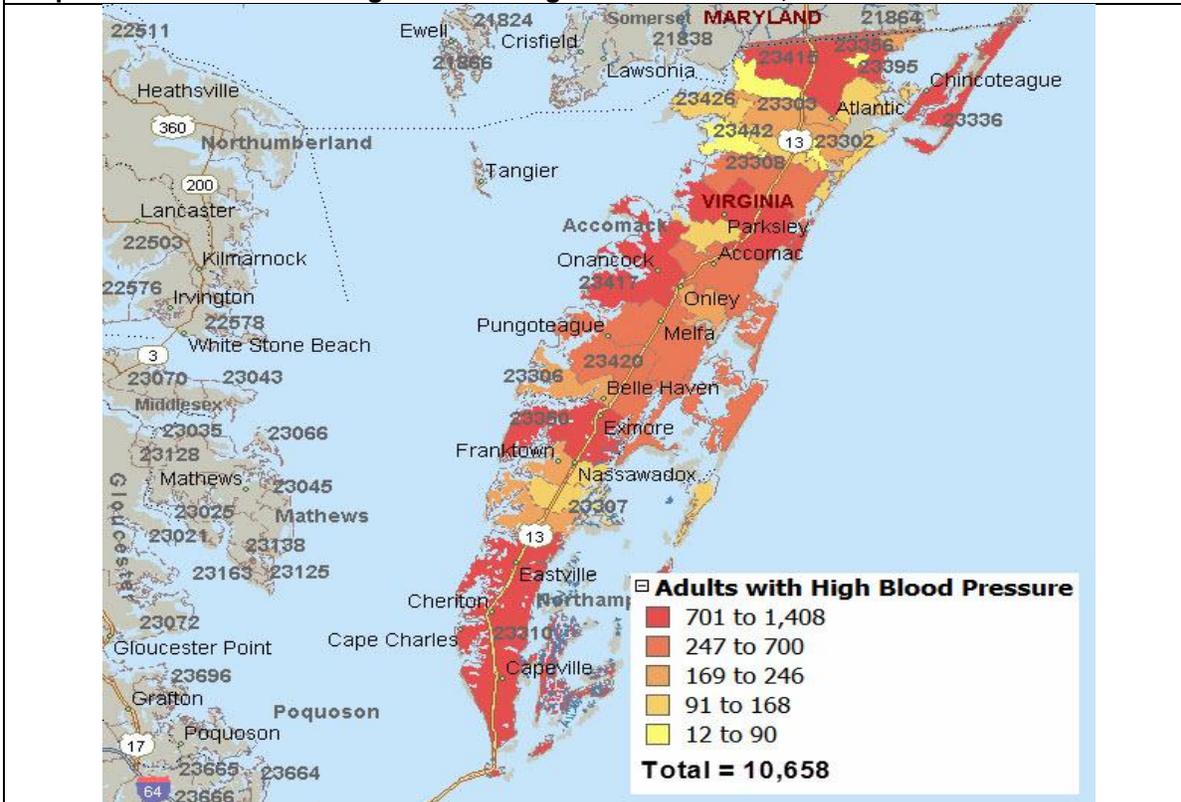
**Map 25: Estimated Adult Age 18+ Smokers, 2011**



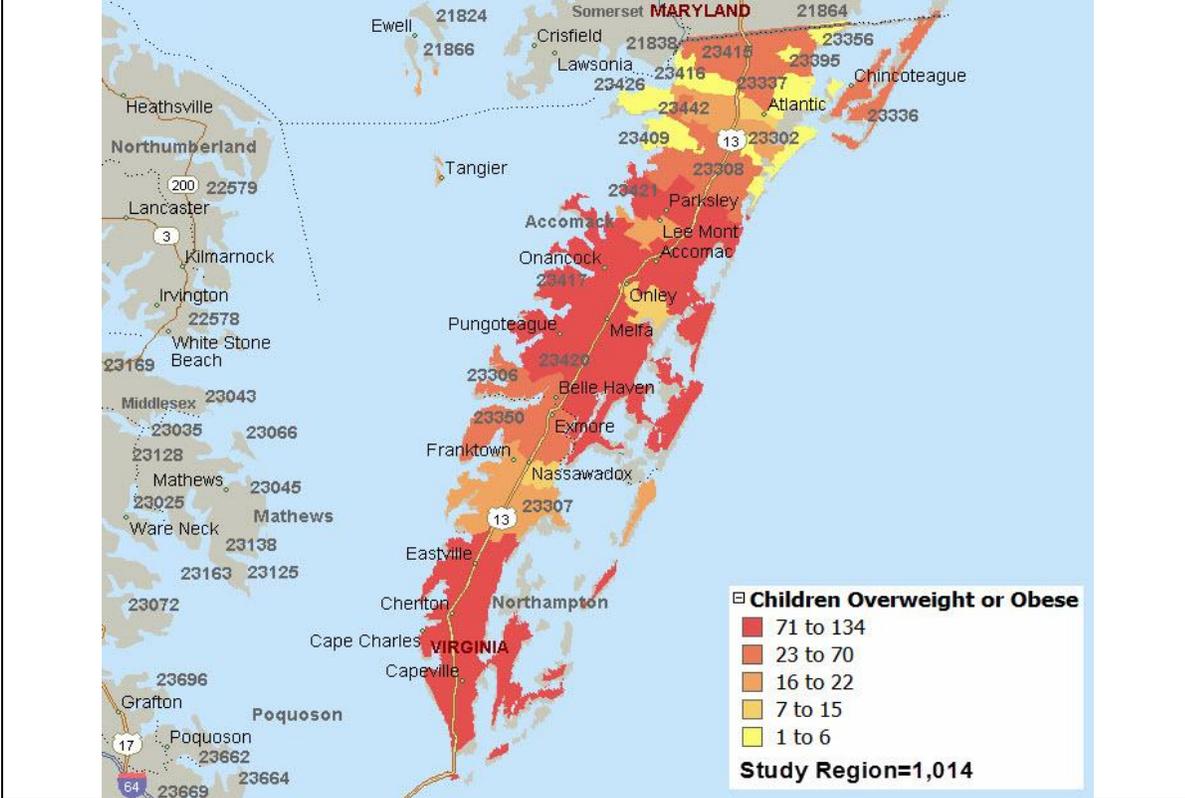
**Map 26: Estimated Adults Age 18+ with Diabetes, 2011**



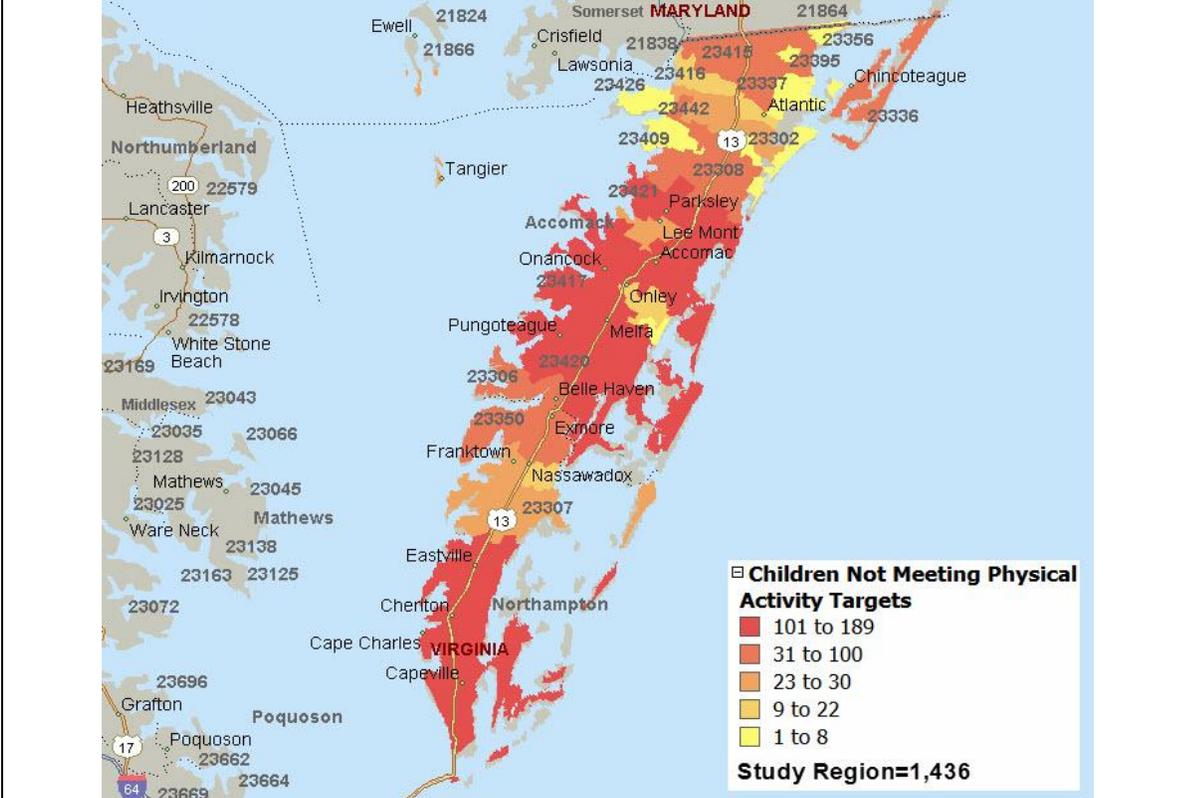
**Map 27: Estimated Adults Age 18+ with High Blood Pressure, 2011**



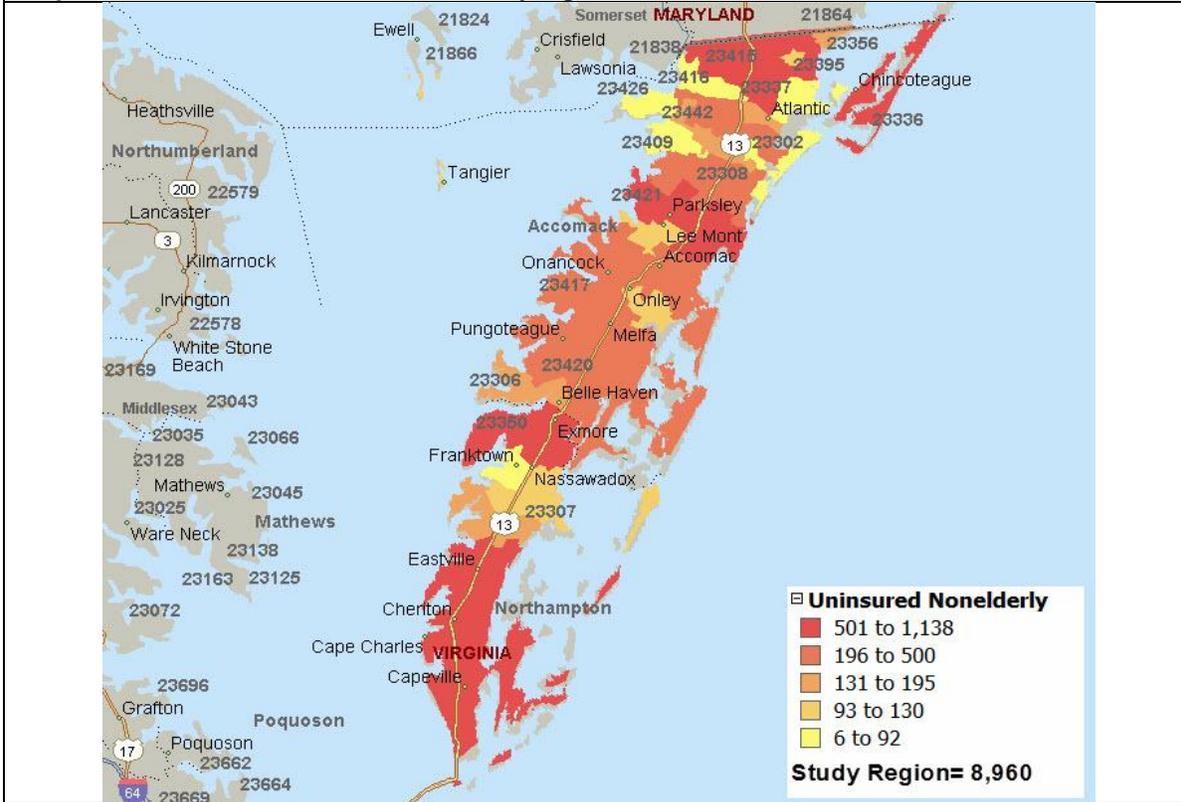
**Map 28: Estimated Children Age 10-17 Overweight or Obese, 2011**



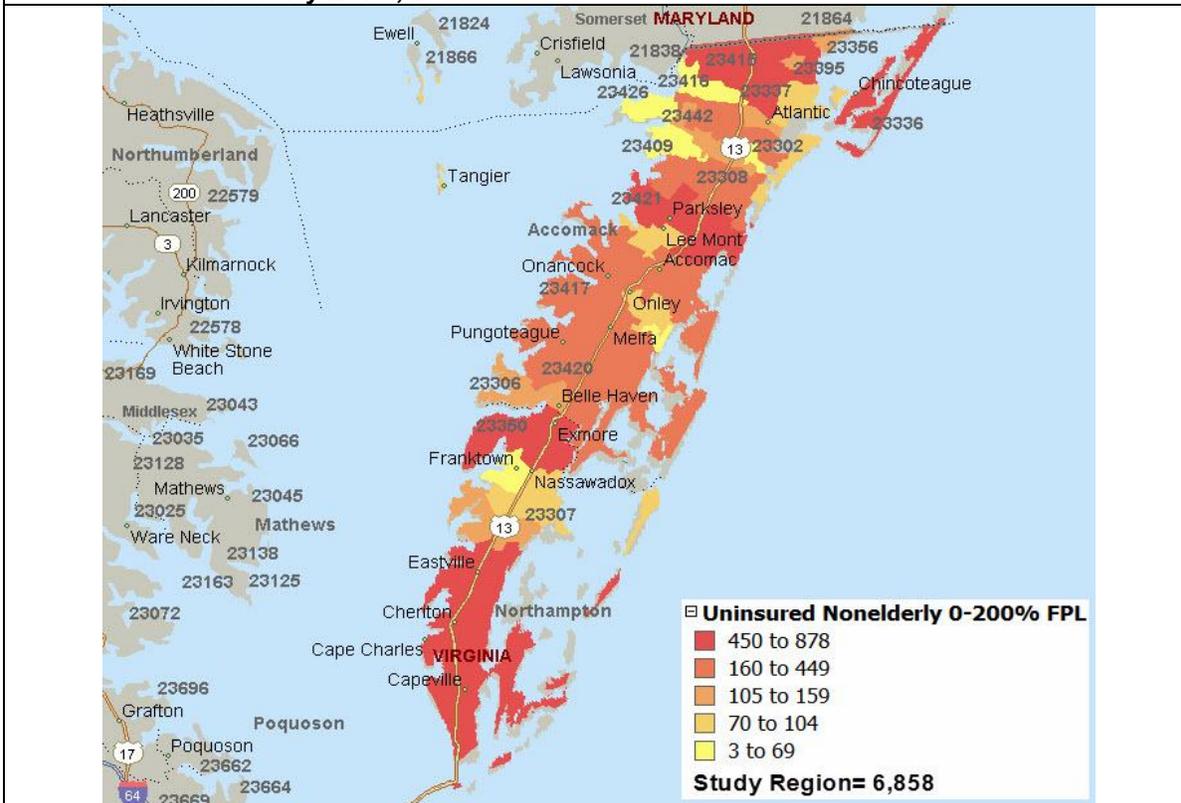
**Map 29: Estimated Children Age 10-17 Not Meeting Physical Activity Targets, 2011**



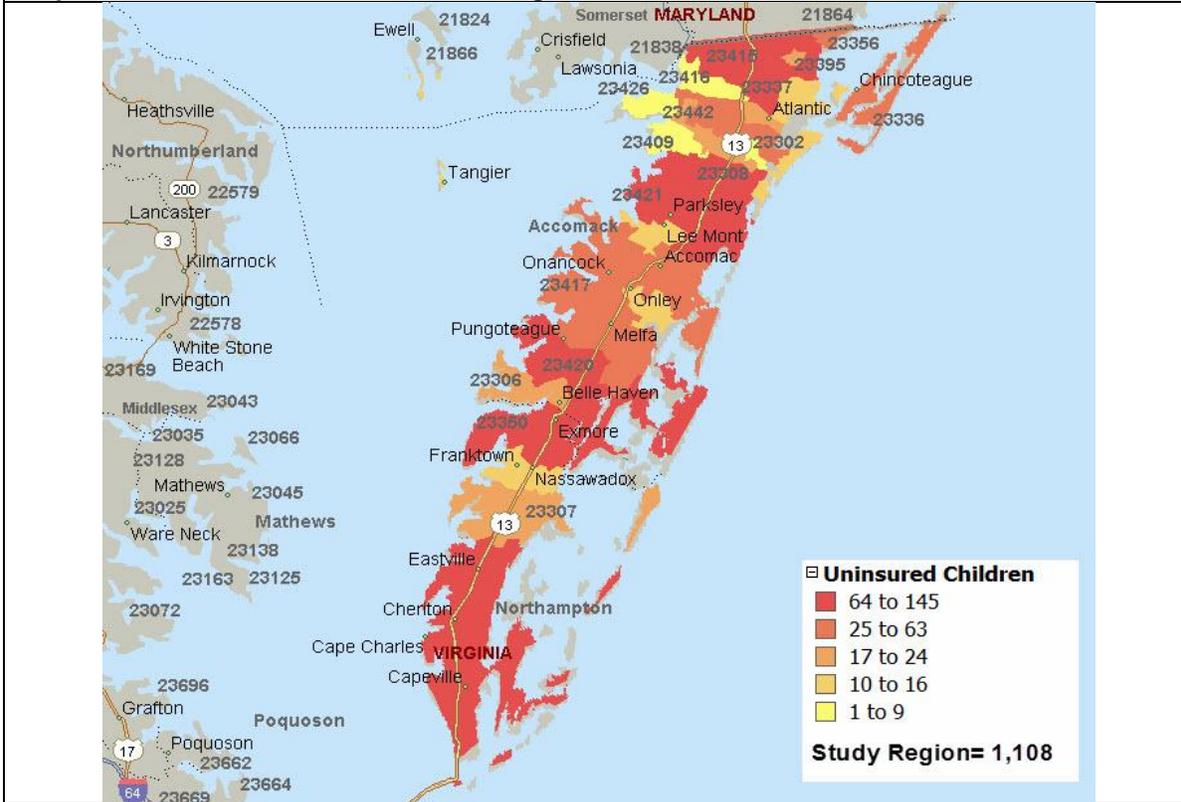
**Map 30: Estimated Uninsured Nonelderly Age 0-64, 2011**



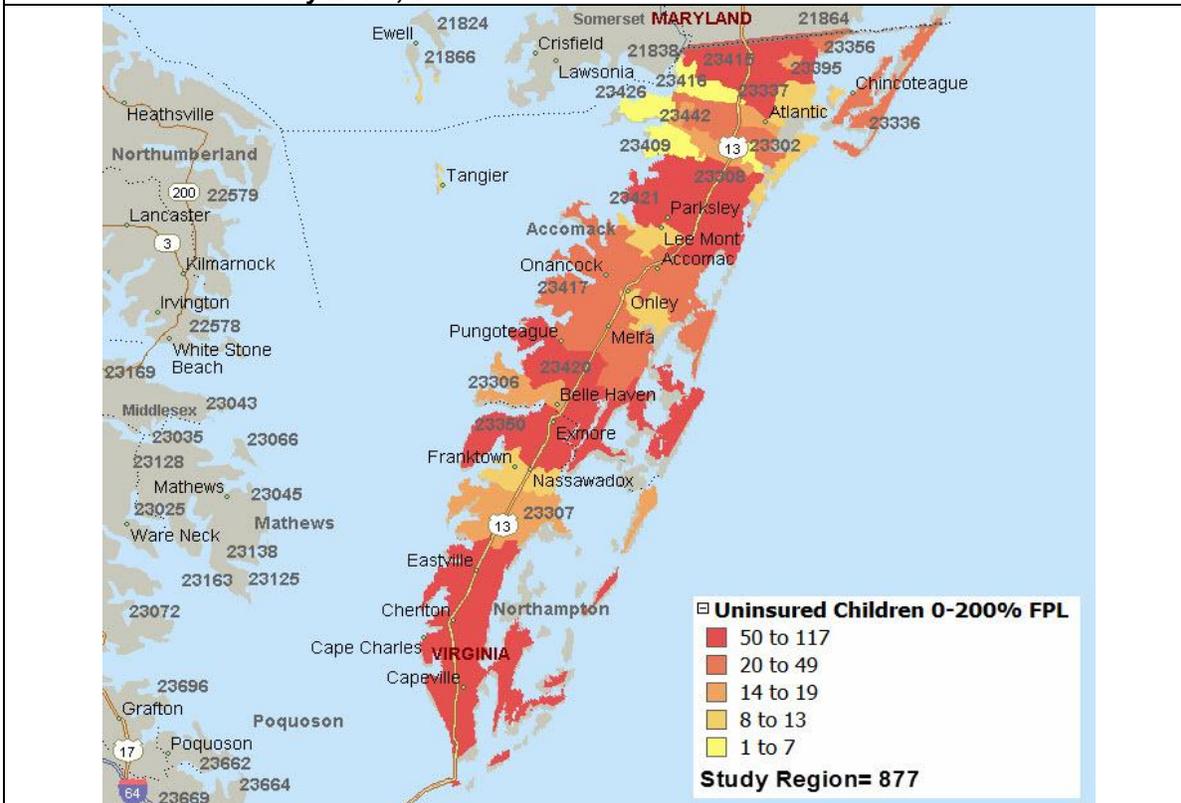
**Map 31: Estimated Uninsured Nonelderly Age 0-64 and Income 0-200% Federal Poverty Level, 2011**



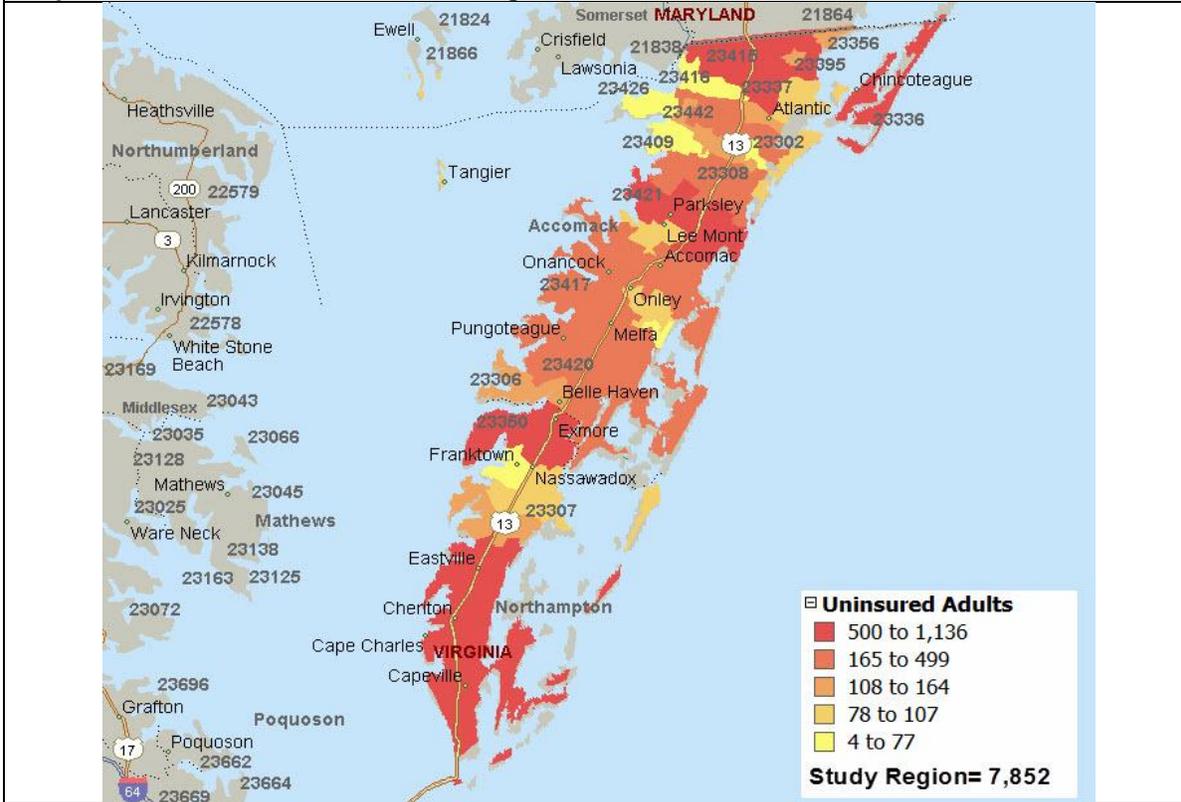
**Map 32: Estimated Uninsured Children Age 0-18, 2011**



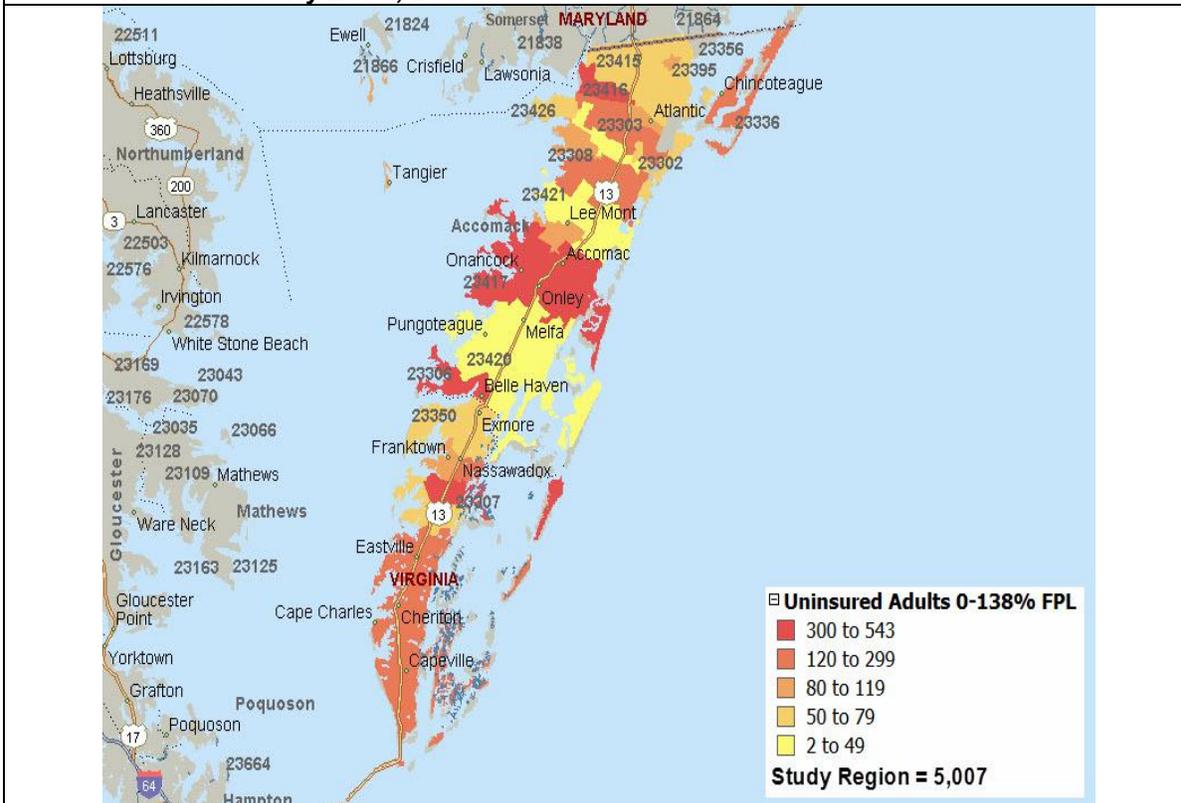
**Map 33: Estimated Uninsured Children Age 0-18 and Income 0-200% Federal Poverty Level, 2011**



**Map 34: Estimated Uninsured Adults Age 19-64, 2011**



**Map 35: Estimated Uninsured Adults Age 19-64 and Income 0-138% Federal Poverty Level, 2011**



## APPENDIX B: Community Insight Profile- Additional Ideas and Suggestions for Improving Community Health

Respondents to the *Community Insight Survey* were invited to submit additional ideas and suggestions for improving community health. The open-ended responses are listed below.

<b>Ideas and Suggestions for Improving Community Health</b>	
<b>Response</b>	
1	<ol style="list-style-type: none"> <li>1) Continued partnering and liaison with Rural Health</li> <li>2) Structured, formatted outreach and screening program</li> <li>3) Collaboration with EMS [in] both counties</li> <li>4) Pediatric partner</li> <li>5) Program for health and wellness</li> </ol>
2	<ol style="list-style-type: none"> <li>1) Attract good physicians</li> <li>2) Also need to have a strong public relations campaign into the community that is visible everywhere. There needs to be a face in the community that attends events, and is on the radio and interacts with organizations and the public that people recognize as Riverside Shore Memorial. This is not happening and the image is not positive. Lots of rumors in the community regarding poor care.</li> </ol>
3	<ol style="list-style-type: none"> <li>1) Add a psychiatric unit back to the hospital as well as substance abuse services/detox. People should not have to go across the bay for these services.</li> <li>2) Also improve relationships with local nursing homes to work together better. Seems to be a big wall up between the two which creates problems with admissions, etc.</li> </ol>
4	<ol style="list-style-type: none"> <li>1) Personal outreach in our community, presentations, focus groups. Improve communication.</li> <li>2) Address and improve radiology services</li> <li>3) Continue working to educate our community on the hospital's financial policies.</li> <li>4) Design a network of all health and human service providers on the Shore to determine collaboration opportunities. We can do more together and have a greater impact on the lives of our patients.</li> </ol>
5	Communication with other organizations that are not affiliated with Riverside. Since Riverside has taken over it has sent a message that it does not wish to work with other organizations by sending out letters informing them they were removing their literature and then halting quarterly meetings that were being conducted with the hospital DON with local agencies in an effort to "enhance the well-being and improve the health" of all individuals on the Eastern Shore.
6	The population of older adults is growing rapidly and the lack of transportation on the Shore adversely affects how and where they receive services and care. They become non-compliant with so many things based on the fact that they have no transportation. Trips to the hospital via ambulance replace appointments with PCPs. Groceries and medications are not easy for them. Life Long Health has some wonderful ideas for promoting "life as you want it."
7	The Eastern Shore of Virginia is significantly short of needed physician specialists and somewhat short of primary care services. Studies have been presented with recommended solutions.
8	Monitor customer service and privacy of patient records.
9	<ol style="list-style-type: none"> <li>1) An urgent care center would be convenient</li> <li>2) Riverside pediatrics</li> </ol>
10	[Local agency on aging] would like to explore partnership possibilities especially those that relate to the elderly. Some possible partnerships might include adult day care services and coordination of discharge planning services to reduce readmissions to the hospital. We would also be open to any ideas Riverside has to partner with aging services on the Shore.
11	If not already existing- a direct coordination with Rural Health for [a] smooth escalation of patient issues and needs beyond their mission scope.

## APPENDIX C: Community Health Needs Assessment Data Sources

Section	Source
<b>Part I: Community Insight Profile</b>	
1) Survey Respondents 2) Community Health Concerns 3) Community Service Gaps 4) APPENDIX B: Community Insight Profile-Additional Ideas and Suggestions for Improving Community Health	Community Health Solutions analysis of <i>Community Insight Survey</i> responses submitted by community stakeholders.
<b>Part II: Community Indicator Profile</b>	
1) Health Demographic Trend Profile 2) Health Demographic Snapshot	Community Health Solutions analysis of 2000 Census, 2010 Census and 2011 population estimates from Alteryx, Inc. Alteryx, Inc. is a commercial vendor of demographic data.
3) Mortality Profile	Community Health Solutions analysis of Virginia Department of Health 2010 death record data.
4) Maternal and Infant Health Profile	Community Health Solutions analysis of Virginia Department of Health 2010 birth record data.
5) Preventable Hospitalization Profile 6) Behavioral Health Hospitalization Profile	Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) January 1-December 31, 2011 dataset. <i>NOTE: Virginia Health Information (VHI) requires the following statement to be included in all reports utilizing its data: VHI has provided non-confidential patient level information used in this report which was compiled in accordance with Virginia law. VHI has no authority to independently verify this data. By accepting this report the requester agrees to assume all risks that may be associated with or arise from the use of inaccurately submitted data. VHI edits data received and is responsible for the accuracy of assembling this information, but does not represent that the subsequent use of this data was appropriate or endorse or support any conclusions or inferences that may be drawn from the use of this data.</i>
7) Adult Health Risk Factor Profile	Synthetic estimates by Community Health Solutions based on: 1) national and statewide Behavioral Risk Factor Surveillance Survey data from the Centers for Disease Control; and 2) demographic data from Alteryx, Inc.
8) Child Health Risk Factor Profile	Synthetic estimates by Community Health Solutions based on: 1) statewide data from Market Decisions' 2010 Obesity Survey commissioned by Virginia Foundation for Healthy Youth; and 2) demographic data from Alteryx, Inc.
9) Uninsured Profile	Uninsured indicators are synthetic estimates by Community Health Solutions based on: 1) Multiple national and statewide uninsured estimates and 2) demographic data from Alteryx, Inc.
10) Medically Underserved Profile	Community Health Solutions analysis of U.S. Health Resources and Services Administration data.